No Free Shop: Why Target Companies in MBOs and Private Equity Transactions Sometimes Choose Not to Buy 'Go-Shop' Options

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Abstract

We study the decisions by targets in private equity and MBO transactions whether to actively "shop" their initial acquisition agreements prior to the shareholders' approval of those contracts. Specifically, targets can negotiate for a 'go-shop' clause in the contract, which permits the solicitation of offers from other would-be acquirors during the "go-shop" window, during which the termination fee paid by the target is temporarily lowered. We consider the "go-shop" decision from the theoretical perspective of value maximization under asymmetric information, and also consider conflicts of interest on the parts of management, bankers, and attorneys that might affect the decision. Empirically, we find that the decision to retain the option to shop an offer is predicted by various firm attributes, including larger size, more fragmented ownership, and various characteristics of the firms' legal advisory team and procedures. These can be interpreted as reflecting a combination of informational characteristics, litigation risk, and attorney conflicts of interest. We employ legal advisor characteristics as instruments when analyzing the effects of go-shop decisions on target acquisition premia and value. We find, as predicted in our theoretical framework, that go-shops are not a free option; they result in lower initial acquisition premia, ceteris paribus. Our theoretical framework has an ambiguous prediction about the effects of go-shop choice on target firm valuation. Consistent with theory, we find no significant effect on abnormal returns from choosing a "go-shop" option.

Keywords: Private equity, management buyouts, mergers, acquisitions, offer premium, cumulative abnormal returns, conflicts, litigation risk, lawyers, merger agreements, go-shop, special committee.

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I. Introduction

The manner in which firms sell themselves in the market is an important, and little-studied, topic. Firms have to decide whether to enter into an agreement with an acquiror as part of a bilateral discussion or as part of a broader "auction" process. Once they have chosen to do one or the other, they then must decide how aggressively to continue to market themselves to other would-be acquirors prior to their shareholders' vote on the acquisition. Firms, unlike commodities, are unique assets and they are acquired as part of a costly process of investigation by potential acquirors. And yet, interestingly, that process is not uniform; the decisions targets make about how to market themselves to acquirors, both before and after they enter into an acquisition agreement, vary greatly.

Legal constraints govern the obligations of the board of directors in marketing targets in a change of control transaction, but targets enjoy substantial latitude under the law about the manner in which they may sell themselves. When a US public company agrees to be purchased by an acquiror in a change of control transaction requiring the approval of the target company shareholders, the transaction is announced publicly and the executed contract providing for the purchase (the merger agreement) is filed as an exhibit to a Form 8-K filed with the Securities Exchange Commission (SEC). In such a transaction, the board of directors of the target company must obtain the best transaction reasonably available to the company. This mandate is often expressed as the board of directors' "Revlon duties" based on the 1986 Delaware case where the court held that in a "change of control" scenario "[t]he directors' role changed from defenders of the corporate bastion to auctioneers charged with getting the best price for the shareholders at a sale of the company."[1] *Revlon* does not require any particular procedure for sale of the company, but rather provides that if the target receives a competing bid after the execution of the merger agreement but before the target shareholders approve the transaction, the board of directors must consider the competing bid.

[1] *Revlon Inc. v. MacAndrews & Forbes Holdings, Inc*., 506 A.2d 173, 182 (Del. 1986).

While the target board in a change of control transaction may choose not to market the company widely prior to the initial accepted acquisition offer, and may also choose not to actively "shop" the target after the execution of the merger agreement (as defined below), the target board of directors must evaluate bona fide offers made by competing acquirors.[2] It is for this reason that acquirors often contract for a fee to be paid by the target company in the event that the target board terminates the merger agreement to pursue the competing bid. These so called target termination fees generally range between 3 and 5 percent of the transaction value of the target.

Over the last decade, "go-shop" provisions have become more common in merger agreements. A go-shop provision in a merger agreement enables the investment bank financial advisor to the target company to actively solicit (i.e., "shop") and negotiate with other potential acquirors (notwithstanding the executed merger agreement contract) with a reduced termination fee for a specified period of time generally ranging from 30 to 50 days (such period of time being referred to as the "go-shop window"). Should the target board of directors determine to terminate the merger agreement with the acquiror based on a bid received during the go-shop window, the termination fee paid to the acquiror typically will be approximately one third to two thirds of the full termination fee that would be payable were the same bid to be received and pursued after the go-shop window.

In recent years, at least one academic commentator has argued that the option to shop an offer can, and on average does, lead to a higher price for the target firm.[3] The views of practitioners on the efficacy of go-shops have been mixed, however, with some suggesting that the go-shop may in certain circumstances be "window dressing" and others suggesting that the go-shop presents an opportunity to overcome a "much lower threshold of obstacles" than would be faced by a competing bidder in the

[2] Such a provision in the merger agreement is often referred to as a "no-shop." The no-shop provision does not eliminate the "fiduciary out" of the board of directors to evaluate bona fide competing offers received after the execution of the merger agreement but before approval of the merger agreement by the target shareholders in a change of control transaction.

[3] Subramanian (2008).

absence of a go-shop. [4] It is also recognized that the option to shop for an offer may have an additional benefit of the reduction in litigation risk for the target.[5] Nevertheless, when a target firm buys a go-shop option it must pay for that option, and in theory that payment should take the form of a lower initial offer price for the firm, ceteris paribus. The current literature on go-shops neither has come to grips fully with the tradeoffs between the costs and benefits of go-shops, nor has provided empirical evidence about go-shops that fully takes account of all those costs and benefits.

These questions have important public policy consequences. In particular, there is an increasing risk that judges may fail to recognize the economic costs to target shareholders of employing go-shop clauses. If judges adopted an unbalanced view of the costs and benefits of go-shop clauses, that could push acquisition targets to adopt go-shops even if the economic consequences of doing so were unfavorable.

In this paper, we examine the determinants of the go-shop decision and the effect on the bidding activity and pricing of an acquisition that results from the decision of the target board of directors to include a go-shop clause rather than a no-shop clause. Economic theory implies that there are countervailing considerations that the target board of directors should take into account when deciding whether to include a go-shop clause, and we take these considerations into account when modeling the go-shop decision and its consequences.

[4] Compare Potter Anderson & Corroon LLP (2008) (observing that the utility of the go-shop is a function of the context in which the target board determines to negotiate for it and suggests that if the initial transaction is the product of overreaching by target management then the go-shop will have little utility) with Signal Hill Capital Group LLC (2012) (hereinafter "Signal Hill Study (2012)")(quoting Robert Friedman, former Chief Legal Officer of the Blackstone Group stating that "Go-Shops are meaningful…Both the strategic universe and the private equity universe would be reticent to come in during a classic no-shop process [after a signed deal is announced]. We just wouldn't do it. But when you put a 'For Sale' on the door, and say come get me then people drop everything and look because they are being invited in.").

[5] Compare Signal Hill Study 5 (observing that in the years 2010 and 2011 transactions with go-shops were subject to litigation 70% and 76% of the time, respectively) with Cornerstone Research (2013) (observing that M&A shareholder litigation of all deals valued at over $500 million impacted 95% and 96% of the deals in the years 2010 and 2011, respectively).

On the one hand, there is the obvious positive value, ex post facto of the signing of the merger agreement, from retaining the option to shop any offer at a reduced termination fee for a period of time. With an offer in hand, the target can attract new offers more easily by showing that a credible bidder has already ascertained that the target firm is worth enough to warrant the offer that is being shopped. In the presence of search and due diligence costs to potential acquirors, being able to shop an offer may attract bidders who otherwise would not participate in the bidding to acquire the target, and it may encourage them to bid above the price of the offer being shopped, especially if there are competitive considerations leading competing bidders to want to prevent the original bidder from consummating its offer at the agreed price.

On the other hand, if a target insists on a go-shop clause, doing so may have a chilling effect, ex ante facto of signing the merger agreement, on the willingness of the initial acquiror to expend search and due diligence costs, and to offer a high price for the target. Knowing that its offer will be shopped, and understanding the positive externalities that its offer creates for other would-be acquirors (precisely as the result of the search and due diligence costs that create ex post option value for the target), ceteris paribus, the initial acquiror should be less likely to bid, and should bid at a lower price, if a target insists on including a go-shop clause.

In addition to the two countervailing economic implications of the go-shop choice, there is a third potential value-maximizing influence on the go-shop decision, namely concerns about legal liability or what we will term "litigation risk." Target firms that employ go-shops may be less likely to face legal challenges from their shareholders about the bargaining process that resulted in the acquisition, and may expect lower litigation costs associated with the challenges that they do face. The duty of the board of directors of the target firm to act as "auctioneers" when considering offers for the target firm in a change of control of transaction does not specifically require them to actively solicit alternative offers, either before the merger agreement is executed (through what is sometimes called a "pre-signing

market check" or an "auction" of the firm), or after the merger agreement is executed (through what is sometimes called a "post-signing market check" or a go-shop clause). Doing so, however, may reduce the risk that a suit will be filed claiming that directors failed to fulfill their fiduciary duties or if filed, that the directors will ultimately be found to have breached their fiduciary to the shareholders. This implies that, for some target firms, including a go-shop may be value-maximizing because of its incremental effect on expected litigation costs, even if absent those considerations (based on the first two countervailing considerations) a go-shop clause would not have been value-maximizing.

In addition to the three influences that matter for the go-shop choice from the perspective of value maximization, agency problems may also distort the go-shop decision. We take into account three different agency problems.

First, the interests of target board of directors and/ or managers may conflict with target shareholders with regard to the decision over the go-shop clause. If a target manager either is part of the group acquiring the target (as in a management buyout or so called, MBO), or if the target manager is promised employment by the would-be buyer, those conflicts of interest may make the manager more willing to agree to a lower acquisition price, and less willing to insist on a go-shop clause in the merger agreement (in order to discourage competing bids).[6] Concerns about director and managerial conflicts of interest are central to the Delaware court's concerns about the sufficiency of offer prices.[7]

Second, the interest of legal counsel may also diverge from that of target shareholders. To the extent that future potential clients evaluate law firms on the basis of their ability to avoid litigation risk in the crafting of merger agreements, lawyers seeking to acquire reputations for negotiating

[6] As we show in Section II, however, in theory the manager may also worry about the litigation risk from behaving this way. In fact, in Section IV, we find that this litigation risk effect makes MBOs more likely to employ go-shops, ceteris paribus.

[7] Weil Gotshal (2006) writes that "Delaware courts, including the recent decision concerning the 2005 SS&C Technologies going-private transaction, have questioned the adverse effects that a private equity sponsor's arrangements with management can have on a sales process by chilling the potential for competing bids." For additional legal perspectives on the origins of "go-shop" clauses, see Potter Anderson (2007), Latham Watkins (2007), Debevoise Plimpton (2006), and Subramanian (2008).

transactions that avoid litigation risk may advise their clients to use go-shops too frequently. Because go-shops may serve to reduce litigation risk, lawyers always benefit when their clients include a go-shop clause, even if adopting a go-shop is not value maximizing for the client. To our knowledge, we are the first to consider agency conflicts faced by lawyers when analyzing the contracting choices faced by a target firm.

A third potential conflict of interest involves the investment banker to the target firms. It is sometimes suggested that investment banks may take into account the business the bank may have with the acquiror as a consequence of the transaction (for example, target investment banks can provide financing or other services to acquirors). If such conflicts of interest are important, no-shops could be a means for conflicted investment bankers or managers to limit competition in pricing, and thereby pass on an implicit side payment to the acquiror. According to this view, the absence of a go-shop clause reflects a conflict of interest that leads to under-pricing of the target firm.

We label the six posited influences on the go-shop choice as the (positive) "ex post option effect," the (negative) "ex ante chilling effect," the (positive) "expected litigation cost effect," the (negative) "managerial agency effect," the (positive) "lawyer agency effect," and the (negative) "banker agency effect" (where positive or negative refer to the effects on the probability of choosing a go-shop provision). The importance of each of these six effects should vary across transactions, depending on the characteristics of targets and the characteristics of their transactions. We consider the nature of the cross-sectional variation in observable characteristics that might arise in the choice of go-shops and we test those alternative perspectives in our empirical analysis of the choice of go-shop clauses and their consequences for bids and for target firm value.

We proceed as follows. Section II develops a theoretical framework that considers various potential influences on the go-shop/no-shop decision. There we derive predictions from a heuristic framework (rather than a formal model) about the choice of go-shop clauses, and about the effects of

the go-shop choice on potential bidding, before and after the merger agreement is executed. In Section III, we review the literature on go-shops. Section IV describes the data that we have collected to test the model developed in Section II. We explain our econometric methodology in Section V, and summarize our empirical findings in Section VI. Section VII concludes.

II. Theories of the Go-Shop Decision

Some targets employ go-shop provisions, while others choose no-shop provisions. Under the assumption (subsequently relaxed) that targets and acquirors bargain over contracts to maximize their respective benefits from the deal, and that each party to the negotiation has a correct understanding of the consequences of its choices, when one observes a target employing a go-shop clause to purchase that option as part of the contract, the implication of observing that choice is that the value to the target of buying that option should exceed the cost to the acquiror of granting that option (which is impounded in the acquiror's bid). Otherwise, both parties could be made better off by agreeing to include a no-shop clause instead. According to contract theory, therefore, heterogeneity in the choice regarding go-shop clauses in contracts entered into by well-informed value-maximizing targets and acquirors acting in their own interests – where some contracts grant the option to shop, while others do not – should reflect heterogeneous circumstances across firms with respect to the relative sizes of the benefit targets receive, and the cost acquirors incur, from the go-shop option. As already noted, it is also possible that non-value-maximizing motivations related to agency problems may encourage non-value maximizing choices. A theoretical framework for predicting go-shop choice, therefore, should also attempt to capture the presence of agency problems that distort the go-shop decision.

When one takes proper account of heterogeneous circumstances, whether one adopts a value-maximizing theoretical framework, or one that also admits the possibility of agency problems, there is no reason to expect any simple correlation between the presence of a go-shop clause and the size of the

acquisition premium received by a target or the consequences of an acquisition for a target's stock price. Under the assumption of value maximization, go-shops are endogenous decisions with different consequences for different firms. Firms that choose go-shop or no-shop clauses have different, legitimate reasons for choosing one or the other; there is no reason to expect a go-shop decision to be associated with higher target value. In the presence of agency problems, this remains true, especially given the fact that the various agents of the target firm (directors, management, lawyers and investment bankers) differ in the nature of their conflicts; for lawyers, conflicts of interest make go-shops more likely ceteris paribus, while for directors, managers and bankers, conflicts make them less likely.

It is possible, however, to construct alternative theoretical models that predict how the heterogeneous circumstances of targets should be associated with different propensities to choose a go-shop clause. It is also possible to predict the consequences for acquisition premia and target valuation of an *exogenous* increase in the propensity to choose a go-shop clause (captured with instruments), after controlling for all influences that affect target valuation. We will explore both of those empirical questions below in our empirical analysis of the causes and consequences of go-shop decisions.

With respect to the modeling of the use of go-shops, observable cross-sectional characteristics that predict the use of go-shops should reflect the underlying theoretical motivations for employing them. Under the assumption of value maximization, retaining the option to shop an offer has two potential gross advantages to a target firm whose directors, management and advisors are acting in the interest of its shareholders. First, having a bona fide offer in hand can be a useful means to convey information to other would-be acquirors, which may demonstrate hard-to-observe valuable aspects of the target to them, and thereby convince would-be acquirors that chose not to participate in the initial bidding to now invest time and effort in formulating a competing bid. In other words, when targets shop their offer, they encourage "free riding" by would-be acquirors on the investment of time and effort in

due diligence by the acquiror whose offer is being shopped. Of course, initial bidders are somewhat protected against such free riding by termination fees (and in some cases matching rights which allow initial bidders to respond to subsequent bids), but go-shop windows temporarily lower those termination fees precisely to encourage some free riding. If shopping an offer encourages additional bidding, then targets that include a go-shop clause in their contract may enjoy an increase in the acquisition price paid.

Second, as noted before, the presence of a go-shop clause may reduce the litigation risk faced by the target. Given the risk that target shareholders may challenge no-shop transactions – charging that the target failed to receive a sufficient price due to conflicts of interest – go-shop provisions may serve a useful role in mitigating litigation risk. Of course, a go-shop clause is only one of several possible devices that could provide prima facie evidence that directors and management are insuring that acquirors do not get a "steal." Other alternative means of immunizing against litigation risk – which one would expect to substitute for the use of go-shops – include: (a) a widespread "market check" undertaken prior to the execution of the merger agreement (what is sometimes termed engaging in a pre-signing market check or "auction") or (b) an ownership structure that is highly concentrated and/or aligned with management, which would make it difficult to argue that management would have agreed to a low price as the result of a conflict of interest.

To the extent that go-shop clauses create value for the target, a value-maximizing target will only choose a go-shop clause if the value to the target from retaining that option (the sum of the expected improvement in the offer price, plus the expected benefit of the mitigation of litigation risk) is greater than the implicit cost the target firm must pay for it. If targets demand a go-shop clause, then acquirors should charge for the go-shop option by reducing the offer price they would otherwise pay. Furthermore, if acquirors see the go-shop as reducing the probability of consummating their transaction, they may invest less in due diligence prior to their first bid, which may also lead them to bid

less for the target (as the result of less confidence about its value). Finally, if initial bidders are concerned that their initial bid might provide a signal of high target value to otherwise uninformed prospective bidders, that could further reduce the initial bid they offer.

It is conceivable that the choice of a go-shop option could raise the initial bid price. For example, assume an extreme case for which there is a near zero probability of attracting a future bidder, and assume that the only gain to using the go-shop clause is the reduction of expected litigation risk. Furthermore, assume that expected litigation cost savings are shared by both the target and the acquiror. Under these assumptions, the use of a go-shop clause should result in a higher initial offer price.

The magnitude of the adverse price impact of a go-shop should vary across targets, as it should reflect the differing consequences of the inclusion of the go-shop clause for the probability that the target will receive a superior offer from an alternative acquiror. A value-maximizing target firm will choose a go-shop clause when the price reduction on the initial bid is expected to be smaller than the sum of (1) the expected gains from attracting additional bids at higher prices during the go-shop window and (2) reductions in expected litigation costs. The initial price reduction, the expected gains from future bids, and expected litigation cost savings all differ according to the circumstances of the target. Under the assumption of value maximization, the paucity of the use of go-shop clauses suggests that negative effects on expected offer prices likely dominate positive effects for most targets; otherwise, go-shops would be ubiquitous.

We consider a variety of influences on litigation risk. Litigation by target shareholders challenging an acquisition, ceteris paribus, should be more likely if ownership is more diffuse because concentrated ownership is prima facie evidence of less managerial latitude in accepting too low a price

as it relates to those shareholders.[8] Litigation risk should also be lower if the target has marketed the firm broadly to solicit bidders, either in a pre-signing market check (i.e., before the merger agreement is executed) or afterward through a go-shop. Finally, the history of the target firm's stock price may contribute to litigation risk. In particular, if the market price of the target in the recent past had been high (say, $20 per share), but a sudden fundamental shock has reduced the value of the target (say, to $15 per share), then management might hesitate to accept a no-shop offer for $17 per share, even if this is a good offer, fearing that shareholders would not understand the nature of the sudden fall in the fundamental value of the firm. In that case, value-maximizing targets may prefer a go-shop offer (even if it reduces the value of the deal to $16.50 per share), if the use of the go-shop clause substantially reduces expected litigation cost (by more than $0.50 per share). In our empirical work, we take account of all these possibilities.

For illustrative purposes, to help fix ideas about the "value-maximizing" approach to go-shops, we construct a simple graphical depiction of the go-shop decision in Figure 1, under the following simplifying assumptions: (1) Target directors choose "go-shops" to maximize the value of the firm for its shareholders, which reflects their views of the effect of that choice on the offer price, on future bidders, and on the expected costs of litigation. (2) Expected litigation costs are born entirely by target shareholders and are an increasing function of target size because of fixed costs that deter would-be litigant shareholders from suing smaller firms, and because accusations of conflicts of interest are harder to win when ownership is concentrated, as it tends to be in smaller firms. With concentrated ownership, it is likely that blockholders (who would have enough knowledge of the firm's prospects and enough voting power to block the transaction) are able to constrain management, making undervalued sales that are contrary to shareholders' interests less likely. (3) To simplify this discussion, we abstract

[8] In some cases, block shareholders may retain (or "roll over") their interest in the firm alongside management in an MBO. In such cases, the effect of ownership concentration on litigation risk may be mitigated. We examine this possibility in our robustness analysis below, but find no mitigating effect.

from other contractual aspects of the transaction (whether the initial bid resulted from a broad marketing of the target firm); for simplicity we assume that no firms are broadly marketed prior to the first accepted bid.[9] (4) For more opaque firms (which also are assumed to be smaller) the effect of a go-shop in attracting potential bidders is relatively muted because of the higher fixed costs and greater marginal due diligence costs associated with making a bid. (5) Acquirors reduce initial offer prices in the presence of a go-shop clause as a result of the greater free riding on their due diligence costs by other potential bidders that occurs with go-shops.

Assumption (1) means that the target firm will choose a go-shop whenever the benefits from doing so exceed the costs (from the standpoint of the value received by target firm shareholders). Assumptions (2) and (4) imply that the gross benefits of employing a go-shop clause are rising in firm size. Assumption (5) implies that the cost of employing a go-shop clause is non-zero and constant with respect to firm size.[10] Figure 1a solves for the equilibrium size cutoff for the use of go-shops. Target firms larger than S* choose a go-shop; those smaller than S* choose a no-shop.

Now, consider how conflicts of interest – which lead to departures from value maximization – affect the go-shop size cutoff in Figure 1. First, as shown in Figure 1b, consider an acquisition involving a managerial conflict in the form of, say, an MBO that is priced below correct value, where the manager sees a private benefit from pushing the deal through and, therefore, a private cost from including a go-shop (which raises the probability of losing his good deal).[11] This implies that the cost curve from the

[9] In Figure 1, if we alternatively assumed that all deals were broadly marketed prior to receipt of the initial accepted bid, the benefit curve would shift down (due to reduced savings from lower expected litigation costs).

[10] The theoretical predictions of our model would still hold if the cost curve were either declining or increasing in firm size. For the latter case, the slope of the cost curve would need to be smaller than the slope of the benefit curve.

[11] MBOs are, by definition, transactions involving a potential conflict. Of course, a managerial conflict of interest arises in any deal with an employment relationship between the target manager and the acquiror. In our sample, preexisting managers tend to remain in acquired targets post-acquisition, so conflicts are almost always present to some extent. One could argue, however, that some deals exhibit more potential for conflict than others. Short of outright MBOs, the subset of transactions involving 13E-3 disclosures, are deals where existing management is in the driver's seat more than for other deals. Furthermore, investment bankers working for targets will sometimes have contractual connections to acquirors, and sometimes not.

perspective of the manager will shift upwards. The presence of the underpriced MBO, however, also raises the expected litigation costs, in which the manager also shares, and this in turn implies that the benefit curve will also shift upwards.[12] The overall effect of managerial agency on the use of go-shops, therefore, is ambiguous. Under the assumption that the first shift dominates the second, the new size cutoff is S', which implies a higher size cutoff for choosing a go-shop; but, if the increased expected costs of litigation outweigh the gains from protecting the manager from higher bids, then the size cutoff is at point S'', implying a greater use of go-shops.

A conflict of interest related to the target's investment bank can also be depicted in Figure 1b. The conflicted investment banker, who seeks to please the acquiror – with whom he hopes to have future business – would use his influence to discourage the target firm from including a go-shop clause, arguing that the litigation costs from the no-shop were low relative to the cost of a reduced initial bid. As in the case of managerial conflict, the equilibrium size cutoff for the use of the go-shop clause would shift to the right, to a point like S' (if the effects of investment banker conflict on expected litigation costs are relatively small), or to a point like S'', if the litigation cost consequences of investment banker conflicts dominate.

Finally, consider the effect of the target lawyer's conflict of interest. The essence of that conflict is that the target lawyer may earn a private benefit reputationally when her clients' deals are able to avoid high litigation costs. In other words, the conflict arises if lawyers are not credited fully with their contributions to higher acquisition premia in the deals on which they advise, but are credited fully (or even excessively) for avoiding costly litigation and blamed for not having avoided high litigation costs. This incentive distortion, if it exists, leads lawyers to prefer go-shops excessively, because they reduce

[12] The manager shares these costs for several reasons. First, the manager typically is a shareholder. Second, litigation may threaten the manager's interests as part of the acquiring team in the MBO.

expected litigation costs.[13] Because lawyers can influence managerial perceptions of litigation costs, a conflicted attorney who encourages excessive use of go-shops shifts the benefit curve upwards, as shown in Figure 1c, making the size cutoff for go-shops (S''') smaller.

As this analysis shows, a proper analysis of the choice of go-shop clauses requires one to take account of the heterogeneous circumstances of the target firms that are choosing whether to include go-shop or no-shop clauses. Larger target firms, targets with more diffuse ownership, firms that did not widely market a target before executing the merger agreement, firms where potential director, managerial or investment banker conflicts of interest are absent, and firms with lawyers who are excessively risk averse in their concerns about litigation risk, ceteris paribus, may be more likely to choose a go-shop clause; smaller targets, target firms with more concentrated ownership, targets that were widely marketed prior to executing the merger agreement, or firms that suffer from director, managerial or investment banker conflicts may be less likely to choose a go-shop. As we will discuss in detail in our empirical analysis below, simple cross-sectional comparisons regarding the characteristics of targets that employ go-shops or no-shops, as well as regression analysis of the go-shop choice, are broadly consistent with the predictions from Figures 1a-1c.

Our empirical analysis also explores the effects on initial accepted bids and on target firm values of choosing to include a go-shop clause. In theory, an exogenous influence that leads a firm to employ a go-shop clause should reduce the initial accepted bid (because the acquiror charges for the granting of this option, as discussed above). Whether an exogenous influence that leads a firm to employ a go-shop clause raises or lowers the market value of the target firm is ambiguous, depending on what other influences matter for the go-shop decision. In a value-maximizing framework, an exogenous increase in the use of go-shops (for example, if for reasons unrelated to the fundamentals of the transaction the

[13] This incentive distortion may reflect differences in the signal-to-noise ratio for evaluating the contribution of the law firm to the outcome. It is plausible to think that it is much easier to infer the role of a lawyer in affecting litigation costs than in the bid received on a deal.

target firm happens to have an attorney that encourages the excessive use of go-shops) will reduce the value of the target. If, however, as the result of director, managerial or investment banker conflicts, the target was likely to under-employ a go-shop clause, then this exogenous influence could be favorable for target firm value.

In our review of the literature, in Section III, we discuss more fully the challenges that arise when attempting to identify shifts in the probability of go-shop choice that do not have direct consequences (other than through the consequences of the go-shop decision itself) for the initial or subsequent bids received by the target. In Sections IV-VI, we address those challenges with our own empirical estimation techniques.

III. Literature Review

Go-shop clauses became common over the last decade and, to our knowledge, there are few academic studies of their effects, of which only one is an empirical analysis of the use of go-shop clauses (Subramanian 2008).

Roberts and Sweeting (2011) develop a theoretical framework that is most directly applicable to go-shops, although it is more general in its treatment. Building on the theoretical and empirical M&A studies of Wilson (1987), Fishman (1988), Daniel and Hirshleifer (1998), Wasserstein (2000), Boone and Mulherin (2007), Horner and Sahuguet (2007), Ye (2007), and Bulow and Klemperer (2009), Roberts and Sweeting (2011) explore a range of theoretical questions related to the differences between sequential and simultaneous auctions. They show that sequential auctions can be value-creating for targets when bidder entry is costly and when potential bidders receive imperfectly informative signals about their values prior to deciding whether to bid. In other words, sellers can benefit from the learning process that occurs in a sequential auction, such as a go-shop. Under some circumstances, structuring a bidding process for a target firm to elicit accepted bids in a sequence tends to result in higher ultimate bids.

Subramanian (2008) finds that deals with go-shop clauses yield greater search (both pre- and post-signing of the merger agreement) than no-shops. He also finds that pure go-shops – go-shop deals without pre-signing market checks – result in a higher post-offer bidder 17 percent of the time (a total of six instances), and that target shareholders receive approximately 5 percent higher returns from the pure go-shop process than they do under a no-shop. The exceptions are management buyouts (MBOs), where the inclusion of a go-shop clause has no discernible effect on competing bidding. Subramanian concludes that "the Delaware courts should generally permit go-shops as a means of satisfying a sell-side board's Revlon duties but should pay close attention to their structure, particularly in the context of go-shop MBOs."

Subramanian (2008) analyzes 141 public company buyout transactions for U.S. targets of greater than $50 million in value announced between January 2006 and August 2007. He excludes from his sample acquisitions out of bankruptcy, as well as acquisitions with a controlling target shareholder [using a threshold of 35%], on the theory that "any shopping process would not be meaningful in these deals unless the controller agreed to sell its shares into a higher-value competing bid (which is rare)." We would note that, as we discuss above, it is also true that closely controlled targets may have less need of a go-shop provision to mitigate litigation risk, because the implicit approval of the controlling shareholder argues against the possibility of managerial conflicts of interest. As we show below, closely held firms are less likely to choose go-shop provisions.

Subramanian (2008) finds that go-shop provisions are used in roughly a third of the transactions he studies. He compares cumulative abnormal stock returns (net of the S&P Composite Index) over the period from 30 days prior to the deal announcement to 30 days after the announcement, and finds that the deals with *pure* go-shop clauses (29 observations) have cumulative abnormal returns that are 5 percent higher than the other firms, which is significant at the 90% level, although he finds no statistically significant difference between go-shops as a whole and no-shops.

Subramanian (2008) offers important confirmation that go-shops provide a bona fide means of marketing a target firm after the receipt of an accepted offer. His focus on returns is also potentially useful for distinguishing whether go-shops are chosen in a manner consistent with value maximization. If go-shops are chosen by targets only in order to maximize expected target value, then *holding other factors constant*, the cumulative abnormal returns associated with go-shop choice should be zero. As the market observes firms predictably choosing go-shops or no-shops and bargaining to maximize their potential value, there should be no consequence for abnormal returns of the predictable differences in contracting structure that reflect firms' heterogeneous circumstances. Conversely, if go-shops deliver excess abnormal returns, after holding other factors constant, this would provide evidence in favor of the under-use of go-shops by at least some of the no-shop firms, presumably reflecting conflicts of interest.

Nevertheless, we do not believe that Subramanian (2008) has estimated a convincing measure of the net expected benefits to target firms from choosing go-shops, holding other factors constant. He does not model the go-shop decision, nor adequately considers how differences in firms' circumstances and in deal characteristics increase or decrease the probability of the choice of a go-shop clause. When go-shop decisions are an endogenous outcome of firms' circumstances, a two-stage regression analysis is needed to disentangle the extent to which the correlation between go-shops and acquisition premia reflects the go-shop decision per se, or the consequences for acquisition pricing of cross-sectional differences in firm attributes that also predict the use of go-shops. Subramanian recognizes this problem, and constructs a "matched sample" of no-shops that he matches with his pure go-shops in an attempt to control for differences in target firms' circumstances. In his matched-sample comparisons, he again finds a 5 percent difference in returns, although they are no longer statistically significant. The differences across deals that Subramanian takes into account in his matched-sample comparisons (deal size, who initiates the deal, and the timing of the transaction), however, as we show below, do not

capture all of the important heterogeneity in targets' characteristics that matter for the go-shop choice. Because go-shop decisions are not made randomly by firms, Subramanian's methodology results in biased estimates of the effects of go-shops on firms' returns.

Indeed, as we discuss in Section II, in theory, once the endogeneity of go-shops is taken into account, the exogenous effect of go-shops on the initial offer price should be *negative*, not positive, and the effect on returns is ambiguous. In our empirical work, we model the go-shop decision explicitly, and measure the effect of exogenous influences on the go-shop choice on the offer price received by the target, and on target returns, after controlling for firm and deal characteristics that affect the offer price and target returns directly (rather than through the go-shop decision).

The literature on termination fees in mergers and acquisitions also bears on the consequences of go-shops for bidding and valuation. After all, go-shops are, in essence, a temporary reduction in the target termination fee. Thus, evidence that higher termination fees can be value-creating for targets is also evidence in favor of potential value-creating consequences from no-shop provisions. Officer (2003) finds that merger transactions with termination fees tend to result in higher acquisition premiums and higher success rates than transactions without termination fees. Bates and Lemmon (2003) show that termination fees are used more in situations where bidding is costly. Both studies conclude that termination fees serve as an efficient contracting device, not a means for incentive-conflicted managers to deter bidding to protect "sweetheart" deals that benefit management at target shareholders' expense.

We do not attempt a comprehensive review of the literatures on conflicts of interest here. With respect to conflicts of target management in M&A transactions, Brewer, Jackson and Wall (2012) provide a review of the literature, and an empirical methodology that shares many aspects with our approach (see also Yim forthcoming). For Brewer, Jackson and Wall (2012)'s sample of bank mergers, they find evidence that CEOs wishing to find future employment opportunities (instrumented by age)

limit the marketing of target firms. For a review of the literature on investment bankers' conflicts of interest in M&A transactions, see Calomiris and Singer (2004) and Calomiris and Hitscherich (2007). These studies examine whether prior relationships between a target's investment bankers and the acquiror are associated with different outcomes in acquisition premia for targets. Calomiris and Singer (2004) analyze 52 large hostile takeover transactions between 1993 and 2003. They find no evidence that potential conflicts affect acquisition premia. Calomiris and Hitscherich (2007) examine 170 cash acquisitions of more than $100 million over the period 1994 to 2002. They find no evidence of a connection between a target bank's prior relationship with the acquiror and the acquisition premium.

With respect to the lawyer conflict modeled in Section II, we are unaware of any prior study related to this phenomenon. There are, however, studies that posit effects on corporate financing decisions that vary with the identities of legal advisers. Coates (2001), for example, shows that despite theoretical predictions suggesting that takeover defenses can lead to lower proceeds in IPOs, "companies advised by larger law firms with more takeover experience adopt more defenses." Coates argues that the decision to take an action that can affect firm value is the net sum of a host of motivations, many of which may also directly correlate with firm value. He argues that a key aspect of legal advisers is that they tend to be exogenous influences on firm value, especially in light of the fact that the choice of legal counsel tends to pre-date the relevant transactions being studied. The choice of legal advisor is thus a valid instrument that can help identify the exogenous effect of the recommended action on firm value. Building on Coates (2001), Johnson, Karpoff and Yi (2012) use the choice of legal advisor as an instrument to identify the causal effect of takeover defenses on firm valuation. Our use of legal advisor identity is similar in spirit to these studies, although the three measures related to the firm's legal team are new, and reflect our desire to consider which aspects of legal advice are more likely to be associated with a conservative posture toward litigation risk.

IV. Data

The transactions in our sample were identified based on information set forth in the database of MergerMetrics, which is a product of FactSet. To be included in the sample, the transaction needed to satisfy the following criteria: 1. The transaction was announced between January 2004 and December 2011; 2. The target was a U.S. public company; 3. The consideration paid to the target shareholders was cash and was offered pursuant to a transaction whereby public ownership in the target would cease; 4. The acquiror was either a financial or private equity buyer; 5. The transaction was not pursuant to a tender offer; and 6. The target had available each of the (a) merger agreement and Merger Proxy Statement for the transaction and the most recent proxy statement for the regularly scheduled annual meeting of shareholders on the EDGAR database of the SEC and (b) stock price data. These various requirements, especially given the 52-week range of analysis of stock prices used in our study, reduced the number of observations in the sample from 356 identified transactions to 321 usable transactions.[14] For each of the transactions so identified, information on a number of attributes of the transaction was obtained, as described in Table 1. Table 1 also provides the labels for the regressors used in the tables that report summary statistics.

We focus on cash deals with financial or private equity buyers because these transactions permit a clear analysis of the responses of returns to deal characteristics. Deals that involve the exchange of stock or involve strategic buyers who may reap synergies from the transaction complicate the analysis of returns because once an accepted bid is announced changes in target value reflect both the fortunes of the target and those of the would-be acquiror. We focus on private equity transactions because in these transactions because the valuation of targets is not complicated by the kind of operational synergies between the acquiring and target firm that would introduce an additional layer of complexity to identification.

[14] The most significant source of attrition are price variables, for the computation of which we required no fewer than 180 non-missing price observations over a calendar year (252 trading days)

Table 2 shows summary statistics for those variables. Some key variables have definitions that depend on the choice of the base, pre-offer price. Our main analysis relies on defining the pre-offer price using the closing price 30 days prior to the offer announcement. This makes it unlikely that the pre-offer price will contain pre-announcement information that reflects the bidding for the target firm. In a robustness section we will show that the results remain qualitatively unaffected if instead we use a 5-day pre-announcement window, rather than a 30-day window. Our discussion henceforth will refer to definitions of variables based on the 30-day pre-offer window.

In a little over half (57.6%) of the deals, the target was widely marketed (a so-called "auction" was conducted) as part of the process of determining the initial bid. In terms of the parameters of the deal, the average termination fee for the acquiror[15] is 3.2% and the average termination fee for the target is slightly higher at 3.6%. That difference is a result of the fact that in a large number of deals (129), the acquiror did not agree to a termination fee. Management buyouts (MBOs) account for 10% of the tranasactions. In a MBO the buyers are also the managers of the firm, and this can give rise to important differences between this type of acquisition and other acquisitions, stemming either from conflicts of interest (discussed in Section II) or from differences in the extent of informational asymmetries. Unlike other acquisitions, In an MBO, the buyer (management) likely knows more about the company than the seller (the board of directors). Because of these considerations, we will perform our analysis both on the complete sample and on a subsample that excludes MBOs. Our results remain quantitatively unchanged across these two sampling methods.

There is great variation in the size of target firms. The average enterprise value is $2.3bil, with values ranging from $300k to $123bil. Target firms have an average leverage ratio of 0.22, with 91 (28%) target firms financed exclusively by equity. 86% have a shareholding structure in which shareholders who individually own more than a 5% stake collectively control more than 20% of the target. 56.4% of

[15] Also known as the reverse termination fee.

the target firms have "concentrated ownership," which we define as an ownership distribution for which the ownership of the largest shareholder or the collective ownership of officers and directors (a coordinated block) exceeds 20%. The number of officers and directors of the firm varies from 4 to 34, with the average at 12.9.

The average offer premium is 34.3%. There is substantial variation in the offer premium, with a standard deviation of 49% and offer premia ranging from a low value of -74.8% to a high value of 352.3%. The average 52- week high offer ratio is 148.8%, ranging from 100% to 1688%, and the average annualized volatility of daily returns is 48.4%, ranging from 15.7% to 265.6%.

In 22.1% of the deals the acquiror has the option to exit the deal if they fail to secure financing for the acquisition, but in 15.3% of the deals the target's financial advisor agreed to offer the acquiror the option of financing. In almost half the deals (49.2%), the target firm's financial advisor has a prior relationship with the acquiror.

Litigation risk is an important concern in acquisitions, as is evident by the fact that more than half of the deals (57.9%) had a special committee formed to examine the transaction and report directly to the board of directors on how to structure the acquisition. 10% of the target firms retained the services of multiple legal advisors to advise them about their acquisition. By construction, roughly a fourth of the targets are classified as retaining the services of what we define as "top-tier" legal advisors.[16]

M&A activity seems to have been affected by the 2007-2009 financial crisis. Figure 2 shows the number of deals per year for the period 2004-2011. Activity peaked in 2006 and 2007, with 66 and 68 acquisitions announced in each of those years, respectively. Activity dropped significantly in 2008-2009 to 24 and 21 deals, respectively, and recovered partially in 2010-2011. Go-shop provisions initially gained in popularity over time, rising from 13% of all deals in 2004 to 38% by 2007. The share of deals

[16] Our definition of "top-tier" is shown in Table 1 and described in detail in a subsequent section.

with go-shop provisions remained at similar levels until 2011 when it suddenly dropped to 22%. As can be seen in Figure 3, these patterns extend to the dollar value of the deals per year where, however, a much sharper decline after 2007 is visible.[17]

Mean Comparisons: Go-shops vs no-shops

A central question of our paper is whether the inclusion of a go-shop provision in the merger agreement affects the offer premium. Figure 4 shows the distribution of the offer premium for go-shop and no-shop deals. Panel (a) shows the offer premium computed based on the 30-day pre-offer price and panel (b) using the 5-day pre-offer price. The distribution of the offer premium appears to be centered on a slightly higher mean for go-shops, the difference being a bit more significant for the distribution of the 5-day premia.

The offer premium may of course depend on a number of factors, so further analysis – in particular, the regression analysis developed in Sections IV and V below – is needed before one can derive conclusions about the effect of the go-shop provision on the premium. Firm attributes that may directly affect the offer premium, such as size, for example, may be substantially different in the two populations.

In Section II, we developed several theoretical predictions, based on a simple model of go-shops, about differences between the attributes of go-shop and no-shop transactions. Those predictions generally are consistent with the simple comparisons of means reported in Table 3. In particular, as further illustrated in Figure 5, go-shop firms tend to be larger than no-shop firms. Figure 5 shows the distribution of the natural logarithm of enterprise value for target firms, for the populations of go-shops and no-shops, where it is clear that go-shops are associated with larger targets.

Table 3 provides other support for the simple comparative static exercises of Section II. In theory, if litigation risk is higher for deals with relatively high ratios of high 52-week highs to offer price,

[17] Our specifications include year fixed effects to sweep out aggregate macro effects in the propensity to include go-shop provisions in initial merger agreements.

then go-shops should display higher ratios, which they do, although the difference in means is not statistically significant. Similarly, widely marketed deals ("auctions") are much less likely to require go-shops, presumably because there is less value in the go-shop option, and because there is less to be gained in terms of mitigating litigation risk from including a go-shop clause. In theory, greater ownership concentration should be associated with less use of go-shops because it mitigates concerns about litigation risk, and we find that this is true (whether one uses the Total Ownership by 5% holders, or an indicator for whether there is a >20% owner, as the measure of ownership concentration).

In theory, the effect of MBOs on the go-shop decision is ambiguous; in Table 3, MBOs tend to make greater use of go-shops, presumably out of concern for litigation risk. Similarly, with respect to the effect of investment banker conflicts on the go-shop decision (which is ambiguous in theory), go-shops are more likely to be chosen if the target's investment bank has a relationship with the acquiror.

We construct three binary indicator variables to capture the effects of lawyer conflicts on the go-shop decision. We assume that lawyers' excessive risk aversion will be higher (1) the higher is the rank of the law firm advising the target (because that firm has greater reputational capital at stake from litigation costs), (2) if a special committee is formed to advise the board on the transaction (because this places a greater focus on procedural concerns and gives greater weight to lawyers' opinions on contractual terms), and (3) if there are multiple law firms advising the target (because more lawyers will be associated with a greater focus on procedural concerns, and because retaining more lawyers increases the probability of a conservative legal opinion in favor of a go-shop, which other lawyers would have little interest in opposing). (The details of the construction of the legal rank variable are provided in Section V below.) All three of these dimensions of targets' legal advisors prove to be associated with a greater use of go-shops, and all three are statistically significant. We also find that target firms with a greater number of officers and directors are more likely to choose go-shops. There

are many potential interpretations of that finding. One possibility is that more officers and directors may be associated with a preference for formalized procedures.

No statistically significant differences exist in the offer premium, although the offer premium is somewhat higher for go-shops on average (as we show below, this difference is not present once one controls for other differences in deals). There are no large or statistically significant mean differences between go-shops and no-shops associated with volatility, leverage, or the size of the termination fees for either the target or the acquiror. Merger agreements with go-shop provisions are less likely to include a financing condition, and marginally less likely to include the option for the acquiror to obtain financing from the target firm's financial advisor. These differences in contract structure may reflect other aspects of no-shop transactions (e.g., greater opacity of no-shops, which may make financing by an informed target banker useful).

OLS Regressions: Partial Covariance between Go-Shop Choice and the Offer Premium

The differences in means tests presented in Table 3 suggest that including a go-shop provision in the initial agreement may be associated with a positive, albeit statistically not significant, effect on the offer premium. As the same tests also showed, however, the population of deals with go-shop provisions differs along a number of characteristics from the population of deals with no-shop provisions. To the extent that these characteristics are related to firm value, the observed differences in the offer premium may be unrelated to the go-shop provision.

To measure the partial covariance between the go-shop choice and the initial offer premium, we estimate a linear model of the offer premium using a rich set of controls as explanatory variables, in addition to the dummy variable for the go-shop provision. We emphasize that the coefficient on the go-shop choice should not be interpreted as indicative of a causal effect of the go-shop choice on the offer premium because the go-shop choice is itself an endogenous variable (we address this endogeneity problem at length in Sections V and VI). Our OLS specification is shown in Equation (1):

$$OP_{it} = \kappa_t + \beta \cdot GO_i + \gamma \cdot Controls_{it} + u_{it} \qquad (1)$$

OP_{it} is the offer premium for deal *i* announced in year *t*. GO_i is a dummy variable indicating whether the initial agreement contained a go-shop provision and $Controls_{it}$ is a vector that contains a rich set of additional controls (definitions are shown in Table 1).[18] We also include year fixed effects (κ_t) to control for the impact of aggregate macroeconomic conditions on offer premia; u_{it} is an idiosyncratic error term.

The control variables used in the OLS regressions can be grouped into three broad categories, based on the degree to which they convey information about target characteristics, market perceptions, or attributes of the initial agreement.

Characteristics of the target firm can have an effect on the offer premium.[19] High leverage may indicate growth opportunities, positive creditor perceptions and/or managerial discipline, and could thus enter the equation with a positive sign. Previously, we argued that small size may be a proxy for greater asset opacity, but it may also be associated with many other characteristics that could matter for valuation, and therefore the likely effect of large size on the premium is uncertain. The effect of shareholding structure is also unclear on a priori grounds, but to control for the possibility of an effect we include two dummy variables, one indicating whether the largest coordinated shareholding block (single shareholder or collective ownership of owners and directors) controls an excess of 20% of the firm and the other indicating whether holders of a minimum 5% stake collectively own more than 20% of the target firm.

[18] The time index indicates the use of time-dependent rather than time-varying controls, as all controls are measured at only one point in time for each deal.

[19] Though a host of target firm characteristics can affect firm value, for identification we can limit our attention only to those characteristics that may affect the *offer premium*, which measures the premium of the initial offer in relation to a pre-announcement market measure of firm value.

Market controls are also included. Baker, Pan and Wurgler (2012) show that reference point prices can have a positive effect on the bidder's offer price. To control for this effect, we include the 52 week high offer ratio. We also include returns volatility although its effect is not clear.

The initial contract specifies termination fees for the target firm and for the acquiror. Although it is not clear how these fees might covary with the premium, we include them as important financial parameters of the agreement. Termination fees impose exit costs and may also reflect bargaining power differentials between the parties involved in the acquisition, and, therefore, may covary with the offer premium. The financing aspects of the contract may also covary with the offer premium. A financing condition is a right to the acquiror to exit the contract if financing cannot be secured. Such exit risk, however, can be hedged by the target firm's financial advisor agreeing to offer financing to the acquiror as needed. This financing option reduces exit risk for the target, but at the same time, it may create a conflict of interest for the financial advisor who, on one hand, has an incentive to obtain the highest offer possible for the target, but on the other hand, may stand to profit from financing the deal for the acquiror. We include two binary indicator variables to indicate the presence of a financing condition or a financing option, and proxy for additional potential conflicts of interest by including a dummy variable indicating whether the target's financial advisor had a prior relationship with the acquiror.

The acquisition may be a management buyout. We have no strong prior on the direction of this effect but recognize that MBOs are qualitatively different from normal acquisitions, due, for example, to lower informational asymmetries. We therefore add a binary indicator for whether the deal is an MBO. We also re-estimate our models on a slightly smaller sample that excluded management buyouts. Finally, we include a dummy variable which indicates whether an auction was conducted as part of the process of obtaining the initial bid. All of the regressions include year fixed effects.

Table 4 shows the results of the OLS regression. Column (1) shows the estimates over the complete sample, which includes MBOs, using the 30-day closing price as the pre-offer price. We repeat

the estimation on a sample that excludes MBOs in column (2). Columns (3)-(4) repeat the estimates shown in columns (1)-(2) for definitions which use the 5-day closing price as the pre-offer price. In all four columns, the go-shop provision does not covary statistically significantly with the offer premium in the presence of the various controls. We do not discuss the partial covariances between the offer premium and the various control variables, except to mention that several of them are statistically significant.

V. 2SLS Methodology for a Continuous Endogenous Regressor

Our OLS estimates indicate no simple empirical connection between go-shops and offer premia once one controls for firm, market and deal characteristics. We do not, however, present these OLS estimates as conclusive measures of the causal effects of the choice of go-shop provisions on acquisition premia. As discussed in Section III, the go-shop decision is not exogenous to many factors that are correlated with the acquisition premium. In order to estimate the exogenous effect of the go-shop provision on the offer premium, we need to employ a framework that addresses the endogeneity of the go-shop decision.

With appropriate instrumental variables, we can employ the use of the two-stage least squares methodology (2SLS) to estimate the exogenous effect of the go-shop provision on the offer premium. The instrumental variables should affect the offer premium only through their influence on the determination of the go-shop decision. In the Appendix, we show that the results remain unchanged if we use a two-step Heckman estimator instead.

The 2SLS estimation method we employ consists of two linear stages, the first modeling the go-shop decision and the second using the fitted values from the first stage to estimate the exogenous effect of the go-shop decision on the offer premium. More concretely, in the first stage we estimate the

specification shown in Equation (2), where the go-shop decision is modeled as a linear equation, which includes a set of control variables (α_t , $Controls_{it}$) and exogenous instruments ($Instruments_{it}$):

$$GO_i = \alpha_t + \delta \cdot Controls_{it} + \mu \cdot Instruments_{it} + w_{it} \qquad (2)$$

Controls are defined as variables that affect both the go-shop decision and the acquisition premium. Instruments are assumed only to affect the go-shop decision; instruments only matter for the acquisition premium through their effect on the go-shop decision. For each deal, this linear first stage would yield estimates of the probability of including a go-shop decision, and this projected probability ($\hat{GO}_i$) would be used in the place of the go-shop dummy in the second stage, which models the offer premium. The second stage is shown in Equation (3), where the exogenous effect of the go-shop provision on the offer premium is captured by the estimated value of β :

$$OP_{it} = \kappa_t + \beta \cdot \hat{GO}_i + \gamma \cdot Controls_{it} + u_{it} \qquad (3)$$

2SLS methodology adjusted for a binary endogenous variable

The go-shop decision is a binary variable, and although we could model this variable using a linear equation as described above, we can greatly improve the fit and efficiency of 2SLS by employing the use of a non-linear binary choice model such as the probit model for the first-stage regression. As in the linear case, we estimate the probit model using as explanatory variables a set of control variables that are common to the first and second stage, as well as one or more instrumental variables. The specification we use is shown in Equation (4), where $I(.)$ is the indicator function and ε_{it} is a normally distributed error term:

$$GO_i = I\left(\alpha_t + \gamma \cdot Controls_{it} + \lambda \cdot Instruments_{it} + \varepsilon_{it} > 0\right) \qquad (4)$$

Following the steps outlined as procedure 18.1 in Wooldridge (2002),[20] the fitted probabilities from this "zeroth" stage regression can then be used as the *sole instrument* in the first stage of the 2SLS estimator. Denoting the fitted values from the probit $\hat{GOpr}_i$, the first stage of the 2SLS now becomes:

$$GO_i = \alpha_t + \delta \cdot Controls_{it} + \mu \cdot \hat{GOpr}_i + w_{it} \qquad (5)$$

The second stage is estimated as in a normal 2SLS estimation. With an endogenous binary variable, this approach improves efficiency over the standard 2SLS estimator. We need not adjust the standard errors to account for having a generated instrument because (a) the probit estimates are $\sqrt{N}$ -consistent and (b) $E(u_{it} \mid Controls_{it}, Instruments_{it} = 0)$, and hence the $\sqrt{N}$ -asymptotic distribution of β is the same whether we use the true or estimated coefficients from the probit stage in constructing the instrument.[21]

This method relies on the standard 2SLS assumption that the control variables only have a linear effect on the second-stage dependent variable. In other words, in the offer-premium equation any non-linear effects should only be due to the nonlinearity introduced by the go-shop decision. Under this approach, in principle one could model the go-shop decision in the probit stage without including any additional exogenous regressors as instruments (i.e., just using the control variables from the second stage) and have the identification come exclusively from the non-linearity introduced by the probit model. To avoid issues of severe multicollinearity in the first stage, however, it is recommended that excluded instruments be added to the probit stage.

Choice of exogenous instruments

We use three dummy variables that proxy for some combination of litigation risk and lawyers' conflicts of interest in recommending go-shops to capture exogenous variation in the go-shop decision.

[20] Wooldridge (2002) pg 623
[21] Wooldridge (2002), pg 117

These three variables (the same three legal indicators discussed in Section IV) affect the propensity to include a go-shop provision in the merger agreement, but should not be directly related to target firm's value and, therefore, should not directly affect the offer premium.

First, we include an indicator for whether a special committee was formed to examine the transaction. The special committee explores different options before making a recommendation to the board, and aims at structuring a deal which strengthens the legal defenses of the firm against future lawsuits challenging the fairness of the transaction; its formation is either an indication of the presence of high litigation risk, or of a legal team that is excessively cautious about litigation risk (the lawyer conflict).

Second, as we argued in Section IV, the number of legal advisors involved in the transaction is also an indicator either of higher litigation risk or greater lawyer conflicts. We thus include a binary indicator variable, indicating whether the target's legal team included multiple legal advisors.

Third, for each legal advisor, we construct another binary indicator variable that captures whether the legal advisor is a highly ranked law firm. Again, this variable can either be viewed as an indicator of high litigation risk or as an indicator of a greater potential lawyer conflict (higher ranked law firms have more reputational risk, and therefore, more potential conflict with target shareholders). To construct the legal rank variable, we first construct a variable (*deals*) which contains the total number of deals that each legal advisor was involved in over the three-year period prior to the year of announcement of the acquisition. We then create a new variable (*avgdeals*) which averages these deals over all of the legal advisors involved in each particular acquisition. Finally, we construct a dummy variable (*Legal_Adv_Rank*) which assumes the value of 1 if the value of *avgdeals* for the particular acquisition lies above a certain threshold. The threshold we use is the upper quartile of the distribution

of *avgdeals* over all acquisitions that were announced during the same year. [22] This is the last instrument used to proxy for legal advisor driven litigation risk.

VI. Regression Results

Determinants of the go-shop decision

Column (1) of Table 5 shows the coefficients of the probit model estimated over the complete sample (including MBOs) and using a full set of controls and exogenous instruments. The three variables capturing litigation risk have a positive influence on the decision of whether to include a go-shop provision in the initial agreement. Legal_Adv_Rank and Special_Committee are statistically significant at the 1% and 5% levels respectively, while Multiple_Lawyers narrowly misses statistical significance at the 10% level.

Acquisitions where broad marketing (an "auction") was conducted as part of determining the initial bid are less likely to include a go-shop provision, since the auction process reduces the marginal benefit of shopping around for competing bids, as discussed in Sections II and IV.

Large targets are more likely to choose go-shops. As discussed in Section II, size is likely a proxy for asset opacity, or perhaps for asset specificity (the number of potential bidders may be increasing in target size), where opacity can be thought of as the variance of the distribution of valuations around the true fundamental value of the target.

Shareholding structures in which a single block controls more than 20% of the firm are less likely to include go-shop provisions, as discussed in Section II. Interestingly, however, the sign on Total Ownership by 5% shareholders is positive and sometimes significant. The sum of the two ownership

[22] We have experimented with different definitions of this variable involving the value of the deals instead of the number of deals, the maximum value of *deals* instead of the average for each acquisition, and using alternative threshold rules such as the mean and median of the distribution. The definition that created the strongest instrument was the one using the number of deals, averaged over the legal advisors involved in the acquisition, and compared against the upper quartile of the distribution.

coefficients is negative, indicating that high concentration with a blockholder results in a lower probability of a go-shop, but high concentration without a block holder possibly results in a higher probability of a go-shop. One interpretation of this latter effect is that high concentration without a blockholder may give greater incentives for a disgruntled shareholder to challenge the deal, resulting in higher expected litigation costs.

Three more variables may be important for the go-shop decision, although they enter with statistical significance that misses the 10% threshold. The first variable is the dummy for MBOs. MBOs are special in that the potential buyer (the management) has an informational advantage over the seller (board) and there is therefore additional pressure related to litigation risk in an MBO to take any measures (such as including a go-shop) that are necessary to ensure the fairness of the transaction. The second variable is the number of officers and directors, which as discussed in Section IV, may reflect the need for more formal assurances in assessments of fairness. Finally, a financing condition also results in a higher propensity to include a go-shop provision. A financing condition offers the acquiror the option to exit the deal if it is unable to secure financing and thus raises the need for a contingency plan in case the initial deal collapses; the option of shopping around for competing bids provides such a contingency plan through greater access to other potential acquirors. Finally, market-related variables, leverage, termination fees and variables capturing various parameters of the involvement of the target's financial advisor do not have an impact on the go-shop decision.

Column (2) estimates the same model using as explanatory variables only the variables capturing litigation risk. The coefficients of these three variables remain largely unchanged from the results in the full model, and this attests to the very robust effect these variables have on determining the go-shop decision. This parsimonious model will be used repeatedly in robustness tests throughout the next few sections, but due to its low predictive power (as attested by the low value of pseudo-R2) any results obtained through its use should be interpreted with caution.

Columns (3) and (4) repeat the regressions in the first two columns for the sample that excludes MBOs. The results remain largely unchanged (however, the coefficients for Number_OD, and Financing_Condition exhibit appreciable increases in magnitude).

2SLS estimates of the effect of the go-shop provision on the offer premium

Column (1) of Table 6 shows the 2SLS estimates. As predicted in Section II, the option provided to the target firm by the go-shop provision is indeed priced in the form of a lower initial bid premium. The magnitude is quite large and statistically significant, indicating that the go-shop provision results in a 41% decrease in the initial offer premium. The estimated coefficients of the control variables assume values similar to the ones obtained in the OLS specification discussed earlier, the two exceptions being Large_Target and Financing_Condition which now decrease in magnitude and lose their high level of statistical significance.

The sole instrument used in this 2SLS specification is the fitted values from the probit model and, as discussed earlier, one identifying assumption of our methodology is that any non-linearity in the offer-premium equation comes solely through the effect of the non-linear go-shop decision. Relaxing that assumption could cast doubt on the results, on the grounds that what our instrumented variable (probit projection) may be identifying is non-linearities in the relationship between the offer premium and each of the control variables (that is, non-linearities that exist in addition to the non-linear effect of the go-shop decision).

As a robustness test, we re-estimate our model using only the exogenous variables capturing litigation risk as explanatory variables in the probit model. The probit estimates of this model were previously discussed and are shown in columns (2) and (4) of Table 5, respectively, for the full sample and for the sample that excludes MBOs. The 2SLS estimates that result from using this more "distilled" probit projection as the instrument are shown in column (2) of Table 6, where we again identify a

negative and statistically significant effect of the go-shop provision. The magnitude is now larger but the Kleibergen-Paap rank Wald F-statistic indicates the presence of weak instruments.

To further test the robustness of this result, we re-estimate the model using a parsimonious specification both in the probit and in the second stage and the results are shown in column (3) of Table 6. Although the go-shop coefficient now decreases in magnitude, we still identify a negative exogenous effect of the go-shop provision on the offer premium; the null of a weak instrument is marginally rejected in this parsimonious version.

The results of these two robustness tests are obtained in the presence of marginally weak instruments and they should thus be treated with caution. This caveat notwithstanding, the results suggest that our method is indeed identifying the exogenous effect of the go-shop provision on the offer premium and not the presence of some unrelated non-linearity in the second stage.

Columns (4), (5), and (6) of Table 6 repeat the same estimations on a sample that excludes MBOs, where we observe the same negative relationship but with a slight decrease in magnitude. Also, in Table A1 of the Appendix, we show that all of the above results are robust to the use of the 5-day closing price as the pre-offer price in our definitions.

Endogenous litigation risk

As discussed in Section III, previous studies (Coates 2001 and Johnson, Karpoff and Yi 2012) have argued that the choice of legal advisors is a valid instrument, both in the context of IPO transaction outcomes and takeover defenses. One could object, however, that firms' choices of legal counsel result from unobserved cross-sectional heterogeneity with respect to litigation risk – that is, firms with high litigation risk tend to be more likely to appoint a special committee, employ multiple lawyers, and choose lawyers with a great market share in M&A transactions. We cannot rule out this possibility. Indeed, one recent study – Krishnan and Masulis (2013) – shows that target firms with higher exogenous risk of anti-trust litigation tend to choose higher-ranked law firms to represent them. Those results,

however – which indicate a positive association between the choice of top legal firms and the resulting acquisition premium – imply that our instrumented estimates of the effect of go-shop options are possibly conservative; to the extent that our empirical estimates ignore the fact that employing top legal counsel raises acquisition premia, as Krishnan and Masulis (2013) find, our negative coefficients of instrumented go-shops on acquisition premia would understate the estimated negative effect.[23]

In our view, to the extent that endogeneity is a concern, that concern applies more to the target's choices about forming a special committee and retaining the services of multiple legal advisors, where the potential direct consequences of such choices for acquisitioin premia have not been a topic of existing empirical research.

To test the robustness of our results with respect to the possible endogeneity of the legal advisory variables, we re-ran our estimations treating the special committee and multiple lawyer dummies as control variables rather than instruments, and found the effect of the go-shop decision retained its magnitude and also remained statistically significant at the 10% level. We also ran an even stricter test in which we treated all three instruments as control variables, thus relying only on the non-linearity of the go-shop decision as the sole source of identification, and found the effect of the go-shop decision to have a negative, albeit somewhat reduced in magnitude, effect. The null of a zero effect was rejected at the 20% level, and the null of a non-negative effect was rejected at the 10% level. Although we cannot completely rule out the possibility of our instruments partly capturing the endogenous effect

[23] We also considered a related potential criticism of our instruments. Suppose that a private equity firm and a target firm both are privy to information not known by others in the market that leads them to agree that the target firm is over-valued in the market. Suppose further that the private equity acquiror and target firm recognize that the agreed low acquisition premium they anticipate in their deal would raise objections by relatively uninformed target stockholders. Anticipating unusual legal problems, the target may be spurred to take extra legal precautions. In that case, it is conceivable that our three legal variables would be associated with a negative acquisition premium as the result of reverse causality. Although this is a logical possibility, it assumes that low anticipated acquisition premia, driven by circumstances where targets and acquirors share adverse asymmetric information, are associated with greater investment in legal counsel. The evidence in Krishnan and Masulis (2013) indicates that, on average, the selection of highly rated law firms is associated with higher acquisition premia. Thus, even if the shared private information story were plausible for some transactions, it would not seem to be a sufficiently pervasive phenomenon to drive a reverse-causality interpretation of our results.

of target litigation risk, the results of these rather strict tests strongly suggest that the instruments are capturing the exogenous effect of the go-shop clause on the offer premium.

The Effect of Go-Shop Choice on CARs

The previous results show that the option provided to the target by the go-shop provision is priced in the form of a lower initial bid; this is in line with what our theoretical discussion in Section II predicts. These results, however, do not answer the question of whether, on average, the go-shop provision is value-generating or value-destroying. In Section II, we found that go-shops could be either value-destroying or value-creating, depending on a combination of two considerations: (1) the motivations for the go-shop, and (2) the extent to which, absent those motivations, the firm would have been value maximizing. Thus, the overall effect of go-shop choice on value is ambiguous.

To address the question of whether, on average, go-shops are value creating, we turn our attention to a market measure of value, cumulative abnormal returns (CARs). We first plot the distribution of CARs for the 31-day window starting 15 days prior to the announcement date. Figure 6 shows the distribution separately for the populations of go-shop and no-shop deals, where it appears to be the case that go-shop deals exhibit slightly higher CARs.

In Figure 7 we also plot the daily evolution of average CARs for the period starting 15 days prior to the announcement date and ending 15 days after the announcement date; we plot these means separately for go-shop and no-shop deals. Note that the means of the distributions shown in Figure 6 correspond to the rightmost values in Figure 7.

Up until and including the day prior to the announcement date, CARs exhibit a slightly upward but rather undifferentiated path between go-shops and no-shops; CARs reach a moderate 2% level at that time. We then observe significant gains in CARs taking place on the day of the announcement and the day following the announcement.

As the figure shows, at the end of this 31-day window, go-shop deals accumulate an excess of 5% in CARs when compared to no-shop deals. Interestingly, this differential is achieved over the same two-day window where CARs exhibit their rapid increase for both populations; the day of the announcement and the day following the announcement.

Table 7 shows means tests for CARs for complete 31-day and 11-day windows centered at the date of announcement, but also breaking down each window to its pre-announcement and post-announcement components; the post announcement window is inclusive of the date of announcement. At the end of the 31-day window, go-shop deals generate a statistically significant 6.66% excess in CARs compared to no-shop deals. Go-shops experience a statistically significant though economically insignificant 0.07% gain in CARs during the pre-announcement window, but the major gains are experienced from the day of the announcement onwards, where go-shops accumulate a 6.59% excess in CARs. Similar observations hold if we examine the 11-day window instead, the only difference being the economically significant loss during the pre-announcement window.

OLS Estimates of the Effect of the Go-Shop Provision on CARs

Although the means tests suggest a positive effect of the go-shop provision on value (as proxied by CARs), these simple estimates are likely to contain significant omitted variable bias. Proceeding as with the offer premium estimates, we first correct for this bias by estimating an OLS specification, where we include the same extensive list of explanatory variables used in the offer premium equation. Column (1) of Table 8 shows the results for the 31-day CARs estimated over the complete sample, which includes MBOs. The effect of the go-shop decision appears to be positive but not significant under this specification. 52wk_high_ratio and Leverage correlates positively with CARs and Large_Target and Auction come in with a negative sign; these effects are statistically significant.

Columns (2) and (3) break up the 31-day window into a pre-announcement window and a post-announcement one; the latter includes the announcement date. Note that the sum of the coefficients in

columns (2) and (3) should be equal to the coefficient in column (1). Comparing these two columns, the main differences are the reversal of the sign of the go-shop decision and volatility. With regards to the go-shop decision, we see that it has a positive and statistically significant effect during the post-announcement period, which is what is driving the positive effect identified in column (1). Columns (4), (5) and (6) repeat the estimations on a sample that excludes MBOs and the results are shown to remain qualitatively unchanged.

2SLS estimates of the effect of the go-shop provision on CARs

As discussed earlier, the decision of whether to include a go-shop provision is endogenously determined, and in this section we estimate the exogenous effect of the go-shop provision on CARs using the same 2SLS methodology we employed in estimating the effect on the offer premium. Column (1) of Table 9 shows the results for the 31-day CARs estimated over the complete sample.[24] The sign of the go-shop variable now becomes negative but the size of the standard error suggests that the effect is not statistically different than 0. Columns (2) and (3) break this effect down to its pre- and post-announcement components. We see that the magnitude of the go-shop coefficient reverses moving from the pre- to the post- announcement window and, as with the OLS results, the post-announcement effect dominates the pre-announcement effect.

Columns (4)-(6) repeat the estimation on the full sample, using however only the three variables capturing litigation risk in the probit model of the go-shop decision. The same pattern is observed as regards the switching of the sign, but the magnitudes of the effects are now stronger, although they still are not statistically significant. The instrument tests, however, indicate the presence of weak instruments so these results should be interpreted with caution.

Table 10 repeats the estimates on the sample excluding MBOs. Table 11 and Table 12 replicate the estimates in Table 9 and Table 10 using an 11-day window instead of a 31-day one. The same

[24] In the regressions involving CARs the sample size falls from 321 to 313 because 8 observations had fewer than 29 non-missing values during the 31-day window.

general patterns are observed in all of the experiments, the only exception being the negative effect identified in the pre-announcement period in column (2) of Table 11 and Table 12.

The go-shop decision does not appear to have any robust economically or statisticaly significant effect on CARs during the pre-announcement period. During the post-announcement period the results indicate the existence of a negative effect, but though this effect is statistically further removed from 0, it is still not statistically significant.

Robustness: CEO Age

Following Brewer, Jackson and Wall (2012), CEOs involved in acquisitions may accumulate private benefits after the successful conclusion of the deal. Yim (forthcoming) develops and empirically validates a theory which connects CEO age to the propensity for acquisitions. In that model, private benefits to the CEO stemming from an acquisition, such as permanent increases in compensation, accumulate over a longer period for younger CEOs and thus increase the propensity for acquisition that is exhibited by acquirors with younger CEOs.

Brewer, Jackson and Wall (2012) argue that a similar mechanism may be at play on the target's side. The CEO of the target may be offered private benefits from the acquiror in exchange for recommending a lower offer premium to the target's board. To the extent that such benefits are permanent and accumulate over time, there should be a positive correlation between CEO age and the offer premium.

We tested that hypothesis in our sample[25] and found no evidence that the age of the CEO has a statistically significant effect on the go-shop decision,[26] the offer premium or CARs. Our results regarding the effect of the go-shop provision on the offer premium and CARs remained unchanged by the inclusion of controls for the age of the target's CEO.

[25] Following Brewer, Jackson and Wall (2012), we added as additional controls the age of the CEO, a dummy variable indicating whether the CEO was chairman, and their interaction.

[26] The signs of the age-related controls in the probit stage are as in Brewer, Jackson and Wall (2012), but the coefficients in our sample are not statistically significant.

Robustness: 13E-3 Disclosure

A member of the target's board may hold an equity share in the acquiring firm, or may be offered equity participation in the merged entity. This presents a conflict of interest, as on one hand, the board member needs to work towards securing the best possible deal for the target shareholders, but on the other hand, he/she stands to benefit from the acquiring firm's concluding the deal at a lower price. Conflicts of interest of this nature are more likely to arise in targets with concentrated ownership. One implication of the presence of such a correlation is that the variable capturing the effects of concentrated ownership on the go-shop decision may actually be capturing more than the lower probability of future litigation.

The target firm needs to disclose such potential conflicts of interest by filing Schedule 13E-3. We thus ran alternative specifications that include an indicator variable to capture whether a Schedule 13E-3 was filed. This allows us to test for the effect of these conflicts on either the go-shop decision or on target firm value. We found this variable to have no statistically significant effect on the go-shop decision and its inclusion did not affect the coefficient of the variable capturing the effects of concentrated ownership on the go-shop decision. Also, it had no effect on CARs. It did affect the offer-premium equation marginally, achieving significance at the 10% level only in the estimates on the sample that excluded MBOs. More importantly for the main findings of this paper, its inclusion did not result in any qualitative or quantitative changes on the estimated effect of the go-shop decision on either the offer-premium or CARs.

Robustness: Reputation of the Investment Advisor

Golubov, Petmezas and Travlos (2012) show that top-tier financial advisors generate higher bidder returns in public acquisitions. Since "tier" is determined by deal activity, a reasonable assumption is that the tier of the financial advisor correlates positively with the tier of the legal advisor. Such a correlation could probably be driven by size (i.e., larger targets retain the services of both top-tier legal

advisors and top-tier financial advisors). Although we do control for size in our estimation, it is still possible that our proxies for litigation risk are capturing residual effects generated by the tier of the financial advisor.

To test that hypothesis, we constructed a binary variable indicating whether the target firm worked with a top-tier financial advisor during the acquisition; the variable was constructed as in Golubov, Petmezas and Travlos (2012). We found that including this variable in the list of controls did not affect our results regarding the determinants of the go-shop decision, or its exogenous effect on either the offer premium or CARs.

VII. Conclusion

We construct a theoretical framework for explaining the choice of go-shop clauses by acquisition targets, which takes account of value-maximizing motivations, as well as agency problems related to conflicts of interest of management, investment bankers, and lawyers. On the basis of that framework, we empirically investigate the determinants of the go-shop decision, and the effects of the go-shop choice on acquisition premia and on target firm value, using a regression methodology that explicitly allows for the endogeneity of the go-shop decision. Our sample includes data on 321 cash acquisition deals – the entire sample of transactions – for the period 2004-2011.

We allow many aspects of target firms to enter into their go-shop decision, including the nature of their legal counsel, their ownership structure, their size, and various other firm, and deal characteristics. We find that legal advisor characteristics, ownership structure, and the extent to which the transaction was widely marketed prior to the first accepted offer all matter for the go-shop decision.

Our paper is the first of which we are aware that explicitly considers potential conflicts of interest between target shareholders and the attorneys that represent target firms. To investigate the potential importance of such conflicts, we employ legal advisor characteristics, which capture

differences in the identity and structure of the legal team advising the target board of directors, as instruments when analyzing the effects of go-shop decisions on target acquisition premia and value. These characteristics play an important role in predicting targets' use of go-shop provisions.

We find, as predicted in our theoretical framework, that go-shops result in lower acquisition premia, ceteris paribus. In other words, when targets insist on including a go-shop provision, they receive a lower offer. The adverse effect of go-shop provisions on the initial acquisition premium is large. Estimates range widely (between -23% and -66%), depending on the specification of the model, which is roughly the size of one standard deviation of the merger premium. Given the size of the standard errors of our estimates, across all of these various specifications, it seems clear that the effect of go-shop choice on the acquisition premium is negative and large (at least -10%).

Our theoretical framework has an ambiguous prediction about the effects of go-shop choice on target firm valuation. Whether the go-shop choice should increase the value of a target should depend on a *combination* of the motivations underlying the go-shop choice (that is, whether it arises from value-maximizing considerations or agency problems, such as attorneys' conflicts of interest). We find some evidence of a positive post-announcement effect for CARs related to go-shop choice, but this effect is not robust to controlling for endogeneity. We regard the evidence regarding the consequences of go-shops for target firms' valuation responses, on average, as inconclusive – not a surprising result, given the lack of any strong theoretical basis for a positive or negative effect in the presence of attorney conflicts of interest.

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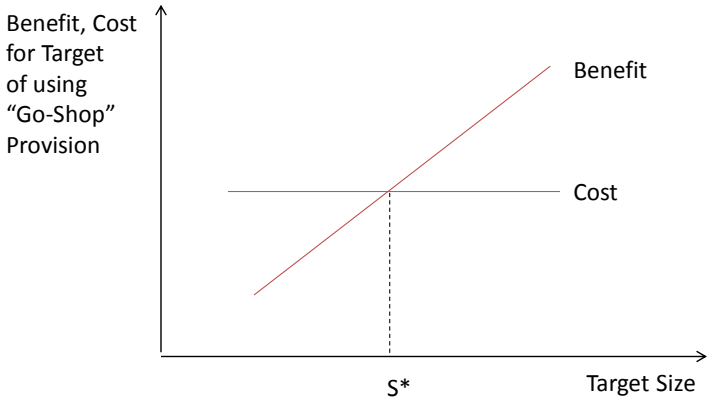
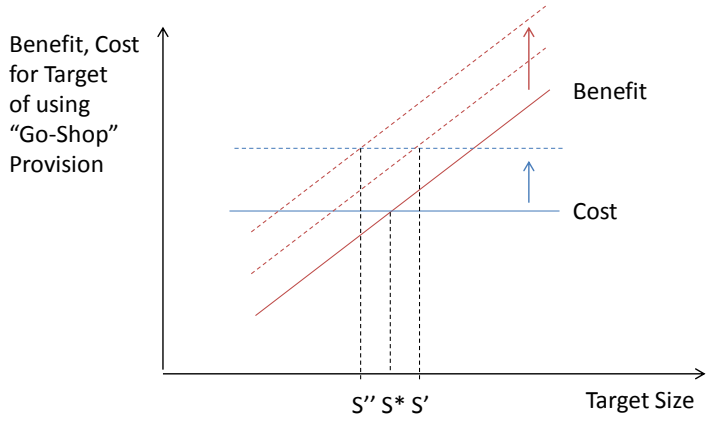
Figure 1: Value-maximizing choice of adopting a go-shop provision

Panel a: Determination of the equilibrium size cutoff



Panel b: Shifts in the cutoff due to endogenous considerations



Panel c: Shift in the cutoff due to exogenous lawyer conflicts

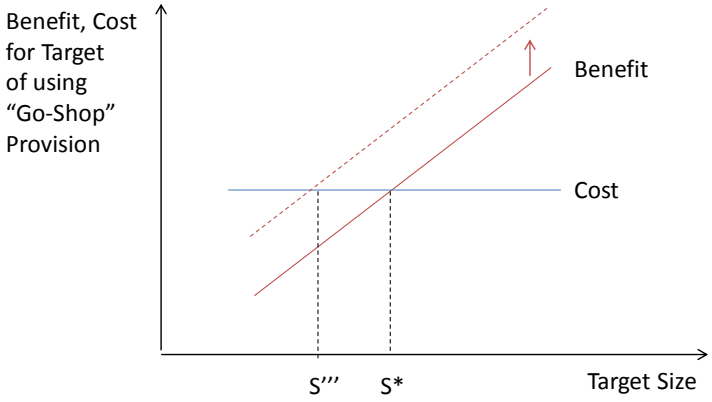


Figure 2: Number of go-shop vs no-shop deals by year of announcement. The total number of deals per year is shown for each of the years 2004-2011. For each year, the upper bar shows the number of go-shop deals and the lower bar the number of no-shop deals.

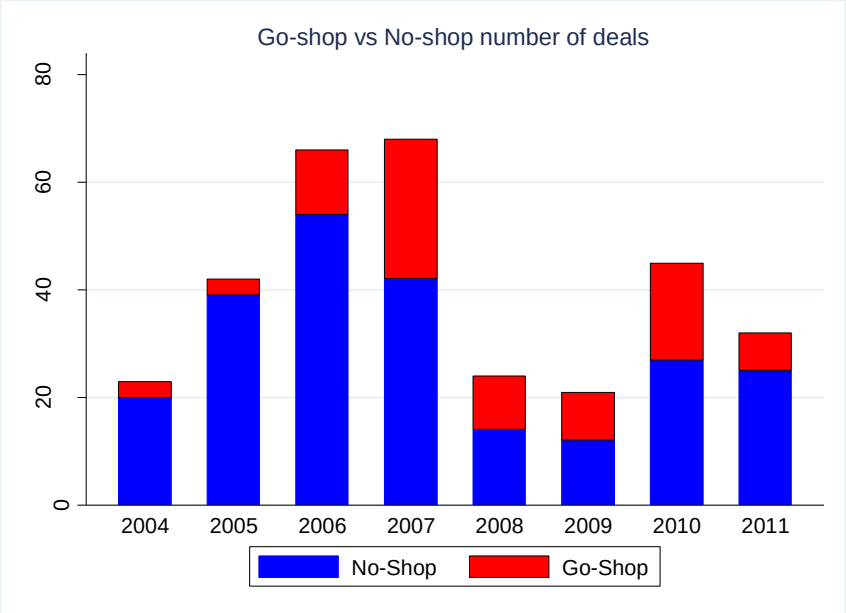


Figure 3: Value of go-shop vs no-shop deals by year of announcement. The total dollar value of deals per year is shown for each of the years 2004-2011. For each year, the upper bar shows the total value of go-shop deals and the lower bar the total value of no-shop deals.

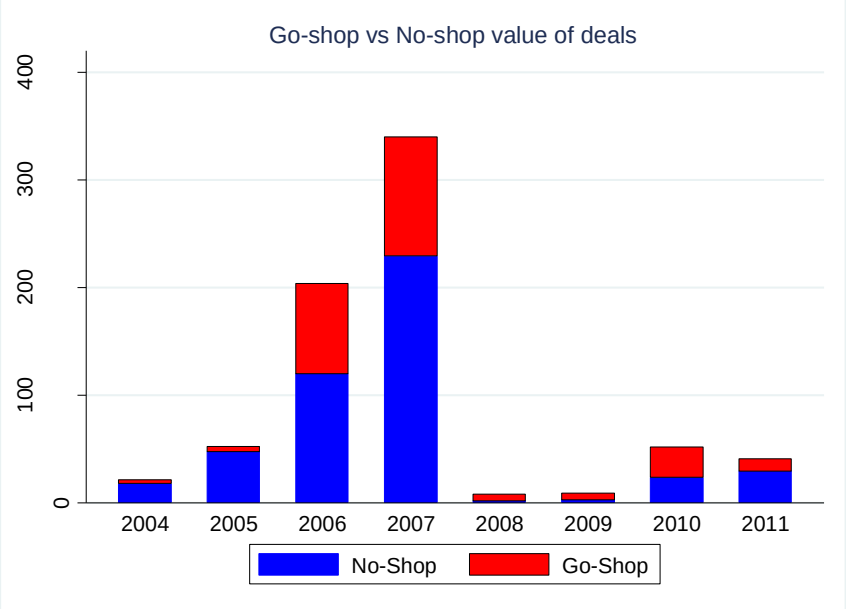
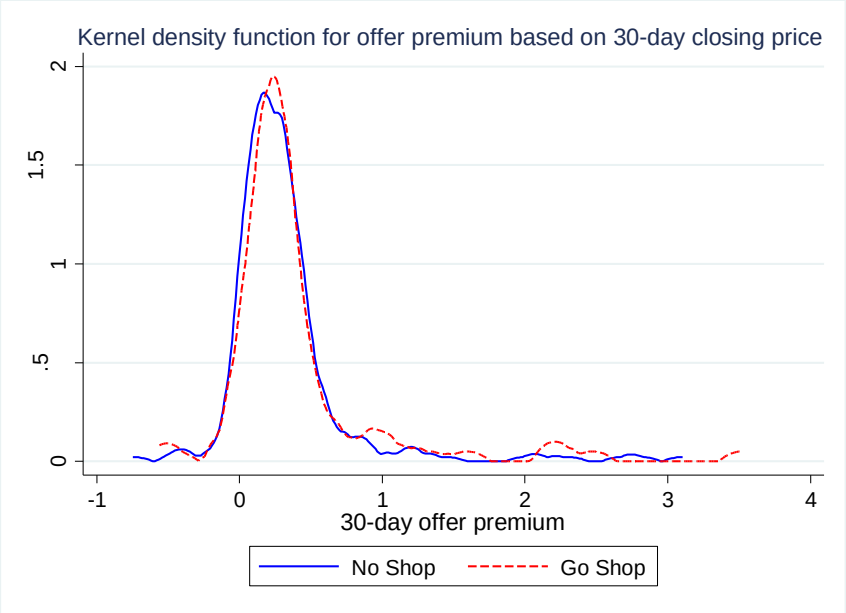


Figure 4: Distribution of offer-premium for go-shop vs no-shop deals. The diagrams show a kernel density function for the offer-premium for go-shop deals (dashed line) and no-shop deals (solid line). Panel (a) shows the distribution for the offer premium defined using the 30-day pre-offer price and panel (b) shows the distribution for the offer premium defined using the 5-day pre-offer price.

Panel (a)



Panel (b)

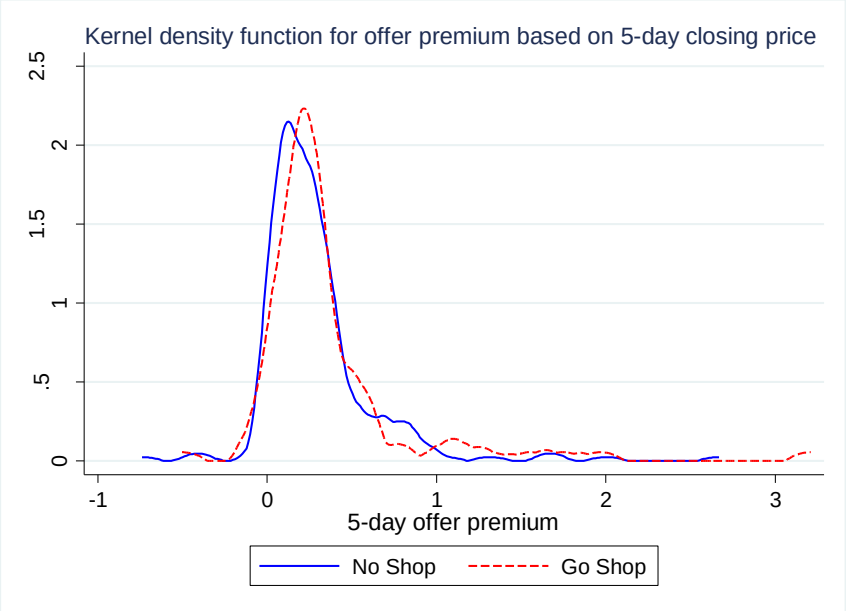


Figure 5: Distribution of the log of enterprise value for go-shops vs no-shops. The diagrams show a kernel density function for the natural logarithm of enterprise value for go-shop deals (dashed line) and no-shop deals (solid line).

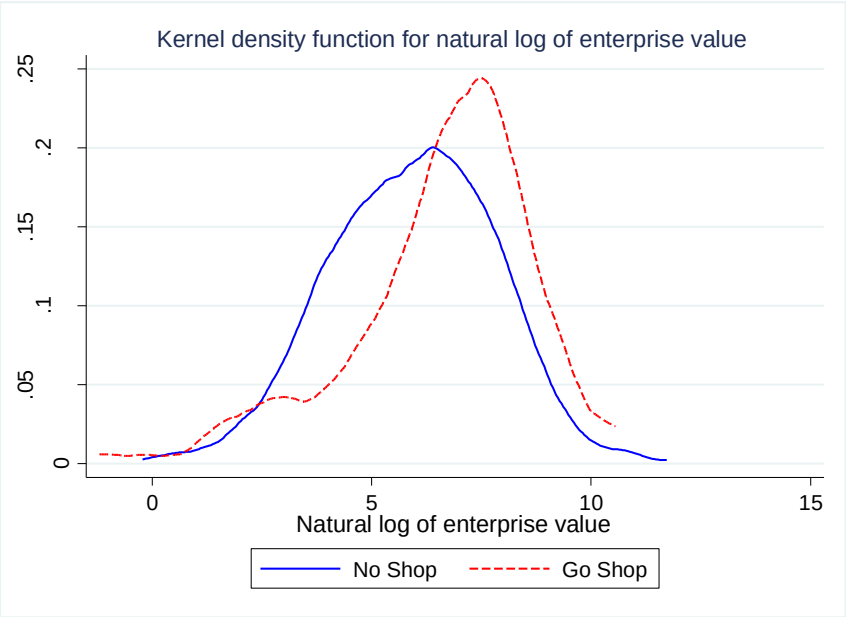


Figure 6: Distribution of target 31-day CARs. The figure shows the distribution of cumulative abnormal returns for the target for the period starting 15 days prior to the announcement date and extending to 15 days after the announcement date. The distributions are shown separately for go-shops (dashed line) and no-shops (solid line).

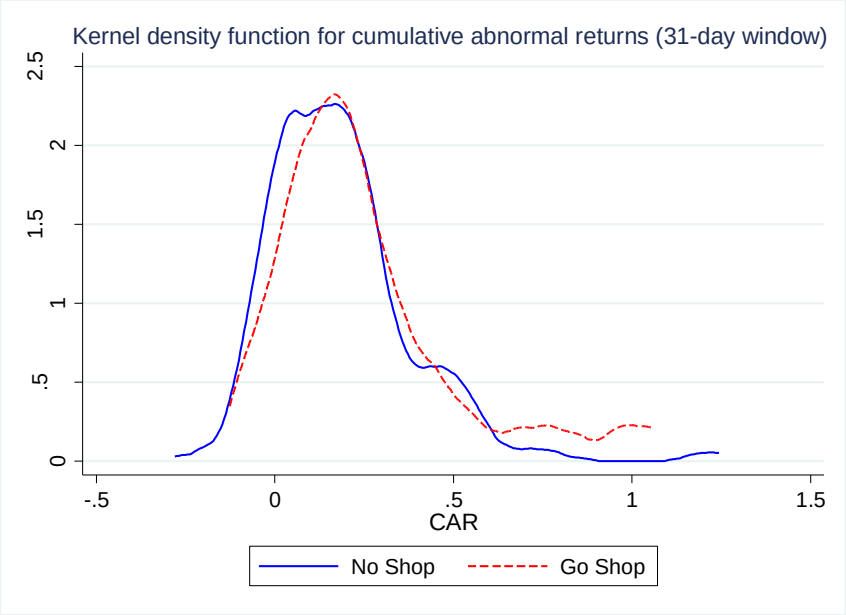


Figure 7: Evolution of target CARs. The figure shows the evolution of cumulative abnormal returns for the target for windows starting 15 days prior to the announcement date and eventually extending to 15 days after the announcement date. CARs are shown separately for go-shops (dashed line) and no-shops (solid line).

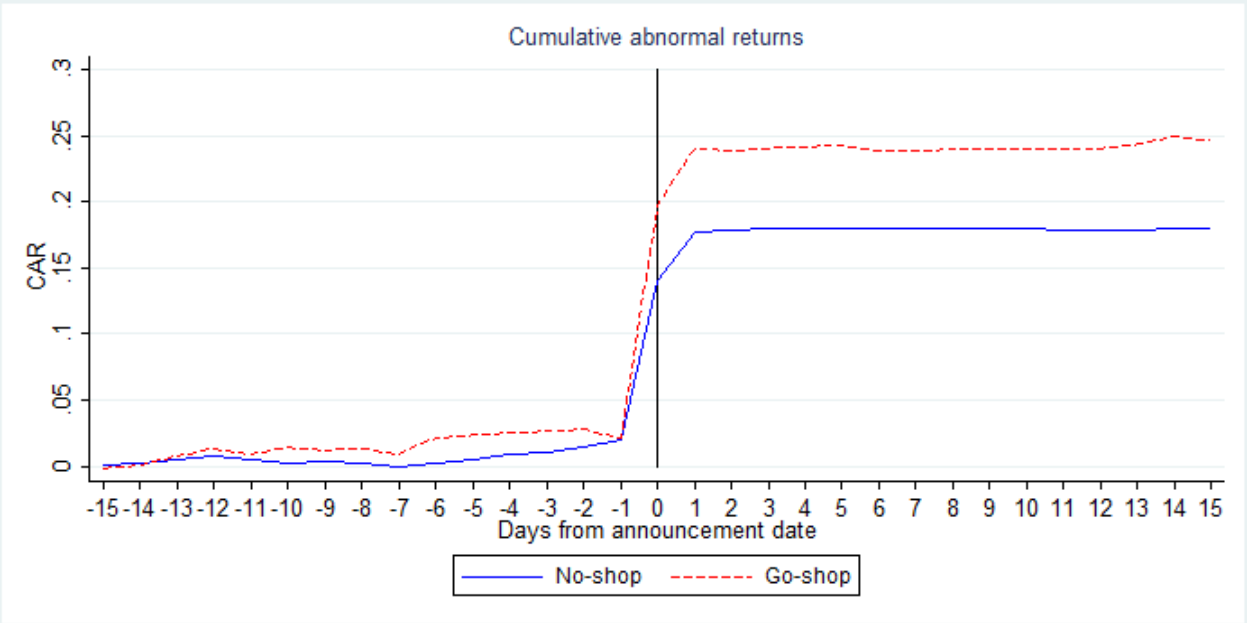


Table 1
Variable Definitions

VARIABLE	DEFINITION
Go-Shop	Merger agreement contains a go-shop provision
30-day pre-offer price	Closing price 30 days prior to announcement
5-day pre-offer price	Closing price 5 days prior to announcement
Offer premium*	(Offer price divided by pre-offer price)-1
52wk High Offer Ratio*	Highest value of target stock price for the 252 trading days before the day at which the pre-offer price is measured, divided by pre-offer price
Volatility*	Annualized standard deviation of daily log returns over the period extending 252 trading days back from the day at which the pre-offer price is measured
Leverage*	(Total debt) divided by [(number of shares outstanding)*(pre-offer price)+(total debt)]
Acq_Termin_Fee	Acquiror termination fee as a percentage of transaction value
Target_Termin_Fee	Target termination fee as a percentage of transaction value
Auction	An auction was conducted as determined by Merger Metrics
Management_Buyout	The transaction was a management buyout
Large_Target	The target's log of enterprise value lies above the median
Total Owner. by 5% Holders > 20%	Total percentage ownership by owners of at least 5% stakes is greater than 20%
Largest Owner.>20% OR O&D Owner.>20%	Ownership by largest shareholder or collective ownership by officers and directors is greater than 20%
Number_O&D	Number of officers and directors of the target
Financing_Condition	The merger agreement contains a financing condition
Target_Adv_Fin	The target's financial advisor provided financing for the acquiror
Target_Adv_AcqServ	The target's financial advisor provided other services for the acquiror
Legal_Adv_Rank	The average of the total number of deals of the target's legal advisors over the three years prior to the year of announcement lies above the upper quartile of the distribution
Multiple_Lawyers	The target had multiple legal advisors
Special_Committee	A special committee was formed
CAR $[-t_1,t_2]$	Cumulative abnormal daily returns over the window which starts t_1 days before the announcement date and ends t_2 days after the announcement date. Daily abnormal returns are calculated using the market model with parameters estimated over the period which starts 268 days and ends 16 days prior to the announcement day. The S&P 500 index return is the market return

*The variable has alternative definitions using either the 5-day or the 30-day pre-offer price

Table 2
Sample Descriptive Statistics

This table presents descriptive statistics for a sample of acquisitions announced over the period January 1, 2004 to December 31, 2011 identified based on information set forth in the database of MergerMetrics, which is a product of FactSet, where the target is a U.S. public company, consideration paid to the target shareholders was cash and was offered pursuant to a transaction whereby public ownership in the target would cease, the acquiror was either a financial or private equity buyer, the transaction was not pursuant to a tender offer and target had available each of the (a) merger agreement and Merger Proxy Statement for the transaction and the most recent proxy statement for the regularly scheduled annual meeting of shareholders on the EDGAR database of the SEC and (b) stock price data. Definitions for the variables are shown in Table 1. Columns (1)-(6) show the mean, median, standard deviation, minimum value, maximum value, and number of observations respectively.

VARIABLE	Mean (1)	Median (2)	SD (3)	Min (4)	Max (5)	N (6)
Go-Shop	0.274	0	0.447	0	1	321
Offer premium based on 30-day closing price	0.343	0.246	0.490	-0.748	3.523	321
Offer premium based on 5-day closing price	0.306	0.227	0.385	-0.738	3.208	321
52wk High Offer Ratio 30 days prior to announcement	1.488	1.181	1.183	1	16.88	321
52wk High Offer Ratio 5 days prior to announcement	1.423	1.164	0.784	1	8.652	321
Volatility 30 days prior to announcement	0.484	0.387	0.320	0.157	2.656	321
Volatility 5 days prior to announcement	0.479	0.379	0.317	0.164	2.543	321
Leverage based on 30-day closing price	0.222	0.123	0.248	0	0.927	321
Leverage based on 5-day closing price	0.220	0.123	0.246	0	0.924	321
Acq_Termin_Fee	0.0316	0.0273	0.0459	0	0.606	321
Target_Termin_Fee	0.0358	0.0327	0.0187	0	0.198	321
Auction	0.576	1	0.495	0	1	321
Management_Buyout	0.0997	0	0.300	0	1	321
Enterprise_Value ($bil)	2.266	541.77	8,042	0.300	123,345	321
Total Owner. by 5% Holders > 20%	0.860	1	0.348	0	1	321
Largest Owner.>20% OR O&D Owner.>20%	0.564	1	0.497	0	1	321
Number_O&D	12.86	12	4.271	4	34	321
Financing_Condition	0.221	0	0.416	0	1	321
Target_Adv_Fin	0.153	0	0.360	0	1	321
Target_Adv_AcqServ	0.492	0	0.501	0	1	321
Legal_Adv_Rank	0.221	0	0.416	0	1	321
Multiple_Lawyers	0.0997	0	0.300	0	1	321
Special_Committee	0.579	1	0.494	0	1	321

Table 3
Conditional Means Tests

This table presents t tests on the equality of means for a list of variables for a sample of acquisitions of U.S. public companies, announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section IV. Column (1) shows the mean value of each variable within the group of deals with a no-shop provision, column (2) shows the mean value within the group of deals with a go-shop provision, and column (3) shows the difference in the means of the two groups tested against the null of equal means and assuming unequal variances for the distributions of the two groups, ***, **, and * denote that the mean of deals with go-shop provisions differs significantly from the mean of the deals with no-shop provisions at the 1%, 5%, and 10% level, respectively.

VARIABLE	NO-SHOP (1)	GO-SHOP (2)	DIFFERENCE (3)
Offer premium based on 30-day closing price	0.3200	0.4048	0.0848
Offer premium based on 5-day closing price	0.2840	0.3651	0.0811
52wk High Offer Ratio 30 days prior to announcement	1.4458	1.6016	0.1558
52wk High Offer Ratio 5 days prior to announcement	1.3754	1.5466	0.1712
Volatility 30 days prior to announcement	0.4817	0.4891	0.0074
Volatility 5 days prior to announcement	0.4765	0.4853	0.0088
Leverage based on 30-day closing price	0.2086	0.2568	0.0482
Leverage based on 5-day closing price	0.2073	0.2554	0.0481
Acq_Termin_Fee	0.0301	0.0356	0.0054
Target_Termin_Fee	0.0362	0.0348	-0.0013
Auction	0.6824	0.2955	-0.3869***
Management_Buyout	0.0858	0.1364	0.0505***
Large_Target	0.4678	0.6818	0.2140***
Total Owner. by 5% Holders > 20%	0.8841	0.7955	-0.0887*
Largest Owner.>20% OR O&D Owner.>20%	0.6009	0.4659	-0.1349**
Number_O&D	12.4335	13.9886	1.5552***
Financing_Condition	0.2446	0.1591	-0.0855*
Target_Adv_Fin	0.1588	0.1364	-0.0224*
Target_Adv_AcqServ	0.4592	0.5795	0.1203*
Multiple_Lawyers	0.1845	0.3182	0.1336**
Legal_Adv_Rank	0.0815	0.1477	0.0662**
Special_Committee	0.5408	0.6818	0.1410**

Table 4
OLS Regressions For The Offer Premium

This table shows the results of an OLS regression of the offer premium, for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section IV. The offer premium is defined as the initial bid price divided by the pre-offer price, minus 1. Go-Shop is a variable that takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. In columns (1)-(2) variables are defined using the closing price 30 days prior to the announcement date as the pre-offer price. Column (1) reports the coefficients for the complete sample which includes MBOs and column (2) for the subsample which excludes MBOs. Columns (3)-(4) repeat the estimations shown in columns (1)-(2), using definitions of variables based on the closing price 5 days prior to the announcement date as the pre-offer price. The regressions control for year fixed effects. Robust standard errors in parenthesis, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

DEFINITIONS	BASED ON 30-DAY PRE-OFFER PRICE		BASED ON 5-DAY PRE-OFFER PRICE	
MANAGEMENT BUYOUTS	INCLUDED	EXCLUDED	INCLUDED	EXCLUDED
DEPENDENT VARIABLE: OFFER PREMIUM	(1)	(2)	(3)	(4)
Go-Shop	0.0092	-0.0319	0.0110	-0.0320
	(0.0674)	(0.0554)	(0.0597)	(0.0473)
52wk_High_Ratio	0.1856***	0.2068***	0.1820***	0.2352***
	(0.0414)	(0.0516)	(0.0560)	(0.0592)
Volatility	0.1325	0.1413	0.2201**	0.1920*
	(0.1145)	(0.1162)	(0.0962)	(0.1022)
Acq_Termin_Fee	1.0526***	1.0479**	0.2260	0.2857
	(0.3962)	(0.4107)	(0.3978)	(0.4234)
Target_Termin_Fee	-3.8229**	-2.2935**	-1.6383	-0.5316
	(1.5165)	(1.1134)	(1.3539)	(1.0908)
Leverage	0.3260**	0.2432**	0.2291**	0.1505*
	(0.1282)	(0.1159)	(0.0983)	(0.0841)
Auction	-0.0364	-0.0590	-0.0412	-0.0621*
	(0.0401)	(0.0409)	(0.0319)	(0.0328)
Management_Buyout	-0.0142		0.0209	
	(0.1164)		(0.0952)	
Large_Target	-0.0858*	-0.0746	-0.0435	-0.0307
	(0.0501)	(0.0459)	(0.0400)	(0.0381)
Total Owner. by 5% Holders > 20%	-0.0681	-0.0794	-0.0992*	-0.1045*
	(0.0598)	(0.0641)	(0.0537)	(0.0579)
Largest Owner.>20% OR O&D Owner.>20%	0.0649	0.0325	0.0460	0.0217
	(0.0555)	(0.0510)	(0.0451)	(0.0399)
Number_O&D	0.0037	0.0058	-0.0008	0.0019
	(0.0068)	(0.0057)	(0.0056)	(0.0045)
Financing_Condition	-0.1144*	-0.0565	-0.0867	-0.0372
	(0.0691)	(0.0520)	(0.0587)	(0.0458)
Target_Adv_Fin	-0.0225	-0.0159	-0.0178	-0.0079
	(0.0503)	(0.0495)	(0.0469)	(0.0472)
Target_Adv_AcqServ	0.0020	-0.0065	0.0201	0.0048
	(0.0489)	(0.0455)	(0.0420)	(0.0382)
Constant	0.0029	-0.0464	-0.0258	-0.1045
	(0.1355)	(0.1288)	(0.1168)	(0.1106)
Observations	321	289	321	289
Adjusted R-Squared	0.333	0.424	0.276	0.392

Table 5
Determinants Of The Go-Shop Decision

The table presents results for a probit regression analysis of the decision to include a go-shop provision in the initial agreement, for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section IV. The dependent variable takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. In all definitions, the closing price 30 days prior to the announcement date is used as the pre-offer price. Column (1) reports the coefficients for a model which includes a full set of control variables and year fixed effects, and column (2) reports the coefficients for a parsimonious model which includes only the subset of controls which capture exogenous litigation risk and does not control for year fixed effects. Both models are estimated over the complete sample which includes MBOs. Columns (3) and (4) repeat the estimations shown in columns (1) and (2) respectively over the subsample which excludes MBOs. Robust standard errors in parenthesis, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

MANAGEMENT BUYOUTS	INCLUDED		EXCLUDED	
INSTRUMENTS	FULL	LIT. RISK	FULL	LIT.RISK
DEPENDENT VARIABLE: GO-SHOP DECISION	(1)	(2)	(3)	(4)
Multiple_Lawyers	0.4198	0.4984**	0.3111	0.4475*
	(0.2770)	(0.2387)	(0.2999)	(0.2526)
Legal_Adv_Rank	0.6078***	0.5363***	0.6193***	0.5270***
	(0.2152)	(0.1799)	(0.2287)	(0.1855)
Special_Committee	0.4730**	0.4869***	0.4833**	0.4436***
	(0.2065)	(0.1633)	(0.2127)	(0.1689)
52wk_High_Ratio	0.0393		0.0179	
	(0.0750)		(0.0695)	
Volatility	0.0948		0.1041	
	(0.4211)		(0.4176)	
Acq_Termin_Fee	1.1724		-0.9109	
	(1.8284)		(3.1423)	
Target_Termin_Fee	-1.1387		-6.4497	
	(4.9136)		(6.7549)	
Leverage	-0.1203		-0.0292	
	(0.4493)		(0.4973)	
Auction	-1.3144***		-1.3643***	
	(0.1978)		(0.2119)	
Management_Buyout	0.4504			
	(0.3398)			
Large_Target	0.5894**		0.5368**	
	(0.2295)		(0.2583)	
Total Owner. by 5% Holders > 20%	0.4275		0.5032*	
	(0.2778)		(0.2973)	
Largest Owner.>20% OR O&D Owner.>20%	-1.0140***		-1.1801***	
	(0.2579)		(0.3124)	
Number_O&D	0.0314		0.0535**	
	(0.0225)		(0.0236)	
Financing_Condition	0.4998		0.7048**	
	(0.3051)		(0.3299)	
Target_Adv_Fin	-0.0510		0.0324	
	(0.2678)		(0.2708)	
Target_Adv_AcqServ	0.0113		-0.0608	
	(0.1966)		(0.2082)	
Constant	-2.3701***	-1.0809***	-2.5778***	-1.0689***
	(0.6620)	(0.1482)	(0.7490)	(0.1487)
Observations	321	321	289	289
Pseudo R-Squared	0.343	0.0483	0.362	0.0454

Table 6
2SLS Estimates For The 30-Day Offer Premium

The table shows the results of a 2SLS estimation of the effect of the go-shop provision on the offer-premium for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section IV. We employ a 2SLS methodology, adapted for the case of an endogenous binary variable and discussed in detail in Section V. The dependent variable in the second stage is the offer premium, defined as the initial bid price divided by the pre-offer price, minus 1. The endogenous variable is Go-Shop, and takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. In all definitions the closing price 30 days prior to the announcement date is used as the pre-offer price. Columns (1)-(3) show the coefficients for the second stage, estimated over the complete sample which includes MBOs. Column (1) corresponds to a model which uses the full probit stage shown in column (1) of Table 5, as well as a full set of control variables for the 2SLS estimation. Column (2) corresponds to a model which uses the parsimonious (litigation risk only) probit stage shown in column (2) of Table 5, and a full set of control variables for the 2SLS estimation. Column (3) corresponds to a model which uses the parsimonious (litigation risk only) probit stage shown in column (2) of Table 5, as well as a parsimonious set of control variables for the 2SLS estimation. Columns (4)-(6) repeat the estimations shown in columns (1)-(3) over the sample which excludes MBOs. All 2SLS regressions control for year fixed effects. Robust standard errors in parenthesis, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

MANAGEMENT BUYOUTS		INCLUDED			EXCLUDED	
PROBIT STAGE CONTROLS	FULL	LIT. RISK	LIT. RISK	FULL	LIT. RISK	LIT. RISK
DEPENDENT VARIABLE: 30-DAY OFFER PREMIUM	(1)	(2)	(3)	(4)	(5)	(6)
Go-Shop	-0.4143**	-0.6613**	-0.5759**	-0.2900*	-0.6232*	-0.5475**
	(0.2029)	(0.3215)	(0.2239)	(0.1631)	(0.3202)	(0.2471)
52wk_High_Ratio	0.1905***	0.1934***	0.2020***	0.2081***	0.2098***	0.2198***
	(0.0450)	(0.0488)	(0.0445)	(0.0527)	(0.0572)	(0.0531)
Volatility	0.1240	0.1191		0.1383	0.1344	
	(0.1198)	(0.1314)		(0.1145)	(0.1270)	
Acq_Termin_Fee	1.0325***	1.0208**	1.0666**	0.9894**	0.9139**	0.9341**
	(0.3975)	(0.4307)	(0.4163)	(0.4085)	(0.4634)	(0.4500)
Target_Termin_Fee	-3.5777**	-3.4347*	-3.8203**	-2.4192**	-2.5814	-2.7286*
	(1.6322)	(1.7911)	(1.6583)	(1.2021)	(1.5929)	(1.5208)
Leverage	0.3326**	0.3364**	0.3574**	0.2539**	0.2677**	0.2885**
	(0.1320)	(0.1413)	(0.1506)	(0.1142)	(0.1240)	(0.1215)
Auction	-0.1758**	-0.2571**	-0.2442***	-0.1436**	-0.2529**	-0.2427***
	(0.0791)	(0.1201)	(0.0913)	(0.0577)	(0.1118)	(0.0909)
Management_Buyout	0.0280	0.0527				
	(0.1329)	(0.1473)				
Large_Target	-0.0145	0.0271		-0.0360	0.0139	
	(0.0666)	(0.0798)		(0.0516)	(0.0678)	
Total Owner. by 5% Holders > 20%	-0.0563	-0.0495		-0.0725	-0.0636	
	(0.0615)	(0.0706)		(0.0622)	(0.0725)	
Largest Owner.>20% OR O&D Owner.>20%	-0.0109	-0.0550		-0.0123	-0.0703	
	(0.0512)	(0.0749)		(0.0509)	(0.0799)	
Number_O&D	0.0064	0.0079		0.0087	0.0124*	
	(0.0064)	(0.0073)		(0.0058)	(0.0075)	
Financing_Condition	-0.0634	-0.0337		-0.0269	0.0113	
	(0.0654)	(0.0812)		(0.0542)	(0.0709)	
Target_Adv_Fin	-0.0496	-0.0655		-0.0304	-0.0491	
	(0.0557)	(0.0638)		(0.0489)	(0.0587)	
Target_Adv_AcqServ	0.0121	0.0180		-0.0075	-0.0087	
	(0.0527)	(0.0576)		(0.0448)	(0.0505)	
Constant	0.0266	0.0403	0.0779	-0.0298	-0.0085	0.0538
	(0.1305)	(0.1420)	(0.1141)	(0.1229)	(0.1392)	(0.1215)
Observations	321	321	321	289	289	289
Centered R-Squared	0.276	0.120	0.168	0.422	0.232	0.266
Anderson-Rubin Wald (signif. of endogenous, pval)	0.0279	0.0101	0.00122	0.0674	0.0150	0.00593
Kleibergen-Paap rk LM (underid, pval)	9.03e-09	0.000375	4.32e-05	1.84e-08	0.00143	0.000430
Kleibergen-Paap rk Wald F (weakid, stat)	48.25	14.36	20.08	46.00	11.27	14.81
Stock-Yogo 10% maximal IV size (weakid, critical val)	16.38	16.38	16.38	16.38	16.38	16.38

Table 7
Conditional means tests for target CARs

This table presents t tests on the equality of means for target CARs for a sample of acquisitions of U.S. public companies, announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section IV. Daily abnormal returns are calculated using the market model with parameters estimated over the period which starts 268 days and ends 16 days prior to the announcement day. The S&P 500 index return is the market return. The CARs are computed over the windows indicated in the square brackets, with the numbers indicating days from the announcement date. Day 0 corresponds to the announcement dates, negative numbers indicate days prior to the announcement date and positive numbers days after the announcement date. Column (1) shows the mean value of each variable within the group of deals with a no-shop provision, column (2) shows the mean value within the group of deals with a go-shop provision, and column (3) shows the difference in the means of the two groups tested against the null of equal means and assuming unequal variances for the distributions of the two groups, ***, **, and * denote that the mean of deals with go-shop provisions differs significantly from the mean of the deals with no-shop provisions at the 1%, 5%, and 10% level, respectively.

VARIABLE	NO-SHOP (1)	GO-SHOP (2)	DIFFERENCE (3)
CAR [-15,15]	0.1793	0.2459	0.0666**
CAR [-15,-1]	0.0204	0.0211	0.0007**
CAR [0,15]	0.1589	0.2248	0.0659**
CAR [-5,5]	0.1770	0.2208	0.0438*
CAR [-5,-1]	0.0174	-0.0004	-0.0178*
CAR [0,5]	0.1596	0.2212	0.0616**

Table 8
OLS Regressions Of CARs

This table shows the results of an OLS regression of CARs, for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section IV. Daily abnormal returns are calculated using the market model with parameters estimated over the period which starts 268 days and ends 16 days prior to the announcement day. The S&P 500 index return is the market return. Go-Shop is a variable that takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. All variables are defined using the closing price 30 days prior to the announcement date as the pre-offer price. Columns (1)-(3) report the coefficients for the complete sample which includes MBOs. In column (1), the dependent variable is CARs over the period which starts 15 days prior to the announcement date and ends 15 days after the announcement date. In column (2) the dependent variable is the pre-announcement CARs, computed over the period which starts 15 days and ends 1 day prior to the announcement date. In column (3) the dependent variable is the post-announcement CARs, computed over the period which starts on the announcement date and ends 15 days after the announcement date. Columns (4)-(6) repeat the estimations shown in columns (1)-(3) over the sample which excludes MBOs. The regressions control for year fixed effects. Robust standard errors in parenthesis, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

MANAGEMENT BUYOUTS		INCLUDED			EXCLUDED	
PERIOD	[-15,15]	[-15,-1]	[0,15]	[-15,15]	[-15,-1]	[0,15]
DEPENDENT VARIABLE: CARs	(1)	(2)	(3)	(4)	(5)	(6)
Go-Shop	0.0307	-0.0239	0.0546*	0.0279	-0.0217	0.0496
	(0.0297)	(0.0175)	(0.0295)	(0.0317)	(0.0188)	(0.0301)
52wk_High_Ratio	0.0646**	0.0354***	0.0292	0.0620*	0.0335**	0.0285
	(0.0313)	(0.0127)	(0.0225)	(0.0324)	(0.0135)	(0.0226)
Volatility	0.0522	-0.1261***	0.1782***	0.0551	-0.1312***	0.1864***
	(0.0664)	(0.0423)	(0.0520)	(0.0674)	(0.0441)	(0.0519)
Acq_Termin_Fee	-0.0187	0.0627	-0.0814	-0.1881	0.0319	-0.2201
	(0.2955)	(0.1573)	(0.1993)	(0.2323)	(0.1402)	(0.1545)
Target_Termin_Fee	0.2046	0.2725	-0.0679	0.4637	0.1519	0.3118
	(0.7162)	(0.5855)	(0.7258)	(0.8240)	(0.7108)	(0.6925)
Leverage	0.1341***	0.0373	0.0969**	0.1351**	0.0513	0.0839*
	(0.0478)	(0.0304)	(0.0412)	(0.0551)	(0.0328)	(0.0448)
Auction	-0.0440*	-0.0175	-0.0265	-0.0527**	-0.0147	-0.0380*
	(0.0232)	(0.0142)	(0.0207)	(0.0249)	(0.0149)	(0.0216)
Management_Buyout	0.0019	-0.0224	0.0244			
	(0.0414)	(0.0253)	(0.0441)			
Large_Target	-0.0781***	-0.0254*	-0.0528*	-0.0571*	-0.0224	-0.0347
	(0.0293)	(0.0151)	(0.0273)	(0.0297)	(0.0156)	(0.0260)
Total Owner. by 5% Holders > 20%	-0.0206	-0.0101	-0.0105	-0.0273	-0.0153	-0.0120
	(0.0291)	(0.0169)	(0.0240)	(0.0321)	(0.0171)	(0.0264)
Largest Owner.>20% OR O&D Owner.>20%	0.0188	0.0117	0.0071	0.0178	0.0087	0.0091
	(0.0261)	(0.0153)	(0.0218)	(0.0290)	(0.0161)	(0.0234)
Number_O&D	0.0039	0.0067***	-0.0028	0.0025	0.0060***	-0.0035
	(0.0026)	(0.0019)	(0.0021)	(0.0028)	(0.0019)	(0.0022)
Financing_Condition	-0.0032	0.0047	-0.0080	-0.0029	0.0135	-0.0164
	(0.0309)	(0.0154)	(0.0291)	(0.0358)	(0.0166)	(0.0312)
Target_Adv_Fin	-0.0169	-0.0180	0.0011	-0.0189	-0.0188	-0.0001
	(0.0246)	(0.0146)	(0.0231)	(0.0246)	(0.0147)	(0.0229)
Target_Adv_AcqServ	0.0365	0.0055	0.0311	0.0307	0.0063	0.0244
	(0.0245)	(0.0129)	(0.0237)	(0.0249)	(0.0134)	(0.0230)
Constant	0.0079	-0.0363	0.0442	0.0159	-0.0416	0.0576
	(0.0699)	(0.0422)	(0.0600)	(0.0758)	(0.0468)	(0.0612)
Observations	313	313	313	282	282	282
Adjusted R-Squared	0.290	0.138	0.268	0.265	0.152	0.277

Table 9
2SLS Estimates For Target 31-day CARs – Complete Sample Including MBOs

The table shows the results of a 2SLS estimation of the effect of the go-shop provision on CARs for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section IV. We employ a 2SLS methodology, adapted for the case of an endogenous binary variable and discussed in detail in Section V. The dependent variable in the second stage is CARs. Daily abnormal returns are calculated using the market model with parameters estimated over the period which starts 268 days and ends 16 days prior to the announcement day. The S&P 500 index return is the market return. The endogenous variable is Go-Shop, and takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. In all definitions the closing price 30 days prior to the announcement date is used as the pre-offer price. Estimates are over the complete sample which includes MBOs. Columns (1)-(3) show the second stage coefficients corresponding to a model which uses the full probit stage shown in column (1) of Table 5, as well as a full set of control variables for the 2SLS estimation. In column (1), the dependent variable is CARs over the period which starts 15 days prior to the announcement date and ends 15 days after the announcement date. In column (2) the dependent variable is the pre-announcement CARs, computed over the period which starts 15 days and ends 1 day prior to the announcement date. In column (3) the dependent variable is the post-announcement CARs, computed over the period which starts on the announcement date and ends 15 days after the announcement date. Columns (4)-(6) repeat the estimations shown in columns (1)-(3) corresponding now to a model which uses the parsimonious (litigation risk only) probit stage shown in column (2) of Table 5 and a full set of control variables for the 2SLS estimation. The regressions control for year fixed effects. Robust standard errors in parenthesis, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

MANAGEMENT BUYOUTS			INCLUDED			
PROBIT STAGE CONTROLS	FULL	FULL	FULL	LIT. RISK	LIT. RISK	LIT. RISK
PERIOD	[-15,15]	[-15,-1]	[0,15]	[-15,15]	[-15,-1]	[0,15]
DEPENDENT VARIABLE: CARs	(1)	(2)	(3)	(4)	(5)	(6)
Go-Shop	-0.0225	0.0110	-0.0335	-0.1307	0.0482	-0.1789
	(0.0717)	(0.0485)	(0.0682)	(0.1163)	(0.0763)	(0.1203)
52wk_High_Ratio	0.0650**	0.0352***	0.0297	0.0656**	0.0350***	0.0306
	(0.0309)	(0.0119)	(0.0230)	(0.0325)	(0.0117)	(0.0255)
Volatility	0.0516	-0.1257***	0.1772***	0.0503	-0.1252***	0.1756***
	(0.0648)	(0.0415)	(0.0537)	(0.0680)	(0.0427)	(0.0618)
Acq_Termin_Fee	-0.0183	0.0624	-0.0807	-0.0173	0.0621	-0.0794
	(0.2913)	(0.1483)	(0.2024)	(0.3081)	(0.1459)	(0.2274)
Target_Termin_Fee	0.1539	0.3057	-0.1519	0.0509	0.3412	-0.2903
	(0.6987)	(0.5572)	(0.7179)	(0.7468)	(0.5708)	(0.8195)
Leverage	0.1356***	0.0363	0.0993**	0.1387***	0.0352	0.1034**
	(0.0464)	(0.0297)	(0.0405)	(0.0480)	(0.0305)	(0.0450)
Auction	-0.0619*	-0.0058	-0.0561**	-0.0982**	0.0067	-0.1049**
	(0.0317)	(0.0191)	(0.0285)	(0.0464)	(0.0296)	(0.0447)
Management_Buyout	0.0074	-0.0260	0.0333	0.0184	-0.0298	0.0481
	(0.0412)	(0.0249)	(0.0447)	(0.0452)	(0.0269)	(0.0506)
Large_Target	-0.0688**	-0.0315*	-0.0373	-0.0498	-0.0380**	-0.0118
	(0.0300)	(0.0166)	(0.0283)	(0.0346)	(0.0190)	(0.0355)
Total Owner. by 5% Holders > 20%	-0.0177	-0.0120	-0.0057	-0.0118	-0.0141	0.0023
	(0.0279)	(0.0160)	(0.0234)	(0.0305)	(0.0166)	(0.0276)
Largest Owner.>20% OR O&D Owner.>20%	0.0096	0.0177	-0.0081	-0.0090	0.0241	-0.0331
	(0.0261)	(0.0163)	(0.0234)	(0.0325)	(0.0208)	(0.0302)
Number_O&D	0.0042*	0.0065***	-0.0023	0.0049*	0.0063***	-0.0014
	(0.0024)	(0.0019)	(0.0020)	(0.0026)	(0.0020)	(0.0024)
Financing_Condition	0.0024	0.0010	0.0014	0.0138	-0.0029	0.0167
	(0.0302)	(0.0159)	(0.0295)	(0.0339)	(0.0170)	(0.0351)
Target_Adv_Fin	-0.0202	-0.0159	-0.0043	-0.0268	-0.0136	-0.0132
	(0.0239)	(0.0145)	(0.0223)	(0.0255)	(0.0151)	(0.0255)
Target_Adv_AcqServ	0.0376	0.0048	0.0328	0.0397	0.0040	0.0357
	(0.0238)	(0.0126)	(0.0231)	(0.0249)	(0.0127)	(0.0249)
Constant	0.0131	-0.0397	0.0528	0.0237	-0.0433	0.0670
	(0.0682)	(0.0404)	(0.0590)	(0.0725)	(0.0423)	(0.0672)
Observations	313	313	313	313	313	313
Centered R-Squared	0.332	0.187	0.291	0.265	0.148	0.119
Anderson-Rubin Wald (signif. of endogenous, pval)	0.754	0.820	0.622	0.248	0.512	0.101
Kleibergen-Paap rk LM (underid, pval)	5.39e-09	5.39e-09	5.39e-09	0.000610	0.000610	0.000610
Kleibergen-Paap rk Wald F (weakid, stat)	51.69	51.69	51.69	13.18	13.18	13.18
Stock-Yogo 10% maximal IV size (weakid, critical val)	16.38	16.38	16.38	16.38	16.38	16.38

Table 10
2SLS estimates for target 31-day CARs – Subsample Excluding MBOs

The table shows the results of a 2SLS estimation of the effect of the go-shop provision on CARs for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section IV. We employ a 2SLS methodology, adapted for the case of an endogenous binary variable and discussed in detail in Section V. The dependent variable in the second stage is CARs. Daily abnormal returns are calculated using the market model with parameters estimated over the period which starts 268 days and ends 16 days prior to the announcement day. The S&P 500 index return is the market return. The endogenous variable is Go-Shop, and takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. In all definitions the closing price 30 days prior to the announcement date is used as the pre-offer price. Estimates are over the subsample which excludes MBOs. Columns (1)-(3) show the second stage coefficients corresponding to a model which uses the full probit stage shown in column (3) of Table 5, as well as a full set of control variables for the 2SLS estimation. In column (1), the dependent variable is CARs over the period which starts 15 days prior to the announcement date and ends 15 days after the announcement date. In column (2) the dependent variable is the pre-announcement CARs, computed over the period which starts 15 days and ends 1 day prior to the announcement date. In column (3) the dependent variable is the post-announcement CARs, computed over the period which starts on the announcement date and ends 15 days after the announcement date. Columns (4)-(6) repeat the estimations shown in columns (1)-(3) corresponding now to a model which uses the parsimonious (litigation risk only) probit stage shown in column (4) of Table 5 and a full set of control variables for the 2SLS estimation. The regressions control for year fixed effects. Robust standard errors in parenthesis, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

MANAGEMENT BUYOUTS			EXCLUDED			
PROBIT STAGE CONTROLS	FULL	FULL	FULL	LIT. RISK	LIT. RISK	LIT. RISK
PERIOD	[-15,15]	[-15,-1]	[0,15]	[-15,15]	[-15,-1]	[0,15]
DEPENDENT VARIABLE: CARs	(1)	(2)	(3)	(4)	(5)	(6)
Go-Shop	-0.0152	0.0287	-0.0439	-0.1475	0.0376	-0.1851
	(0.0805)	(0.0521)	(0.0734)	(0.1411)	(0.0904)	(0.1410)
52wk_High_Ratio	0.0618**	0.0337***	0.0281	0.0612*	0.0338***	0.0275
	(0.0315)	(0.0129)	(0.0227)	(0.0327)	(0.0128)	(0.0243)
Volatility	0.0554	-0.1315***	0.1868***	0.0560	-0.1315***	0.1875***
	(0.0652)	(0.0442)	(0.0540)	(0.0685)	(0.0446)	(0.0626)
Acq_Termin_Fee	-0.1941	0.0389	-0.2330	-0.2124	0.0401	-0.2525
	(0.2256)	(0.1339)	(0.1537)	(0.2387)	(0.1358)	(0.1737)
Target_Termin_Fee	0.3208	0.3186	0.0023	-0.1166	0.3480	-0.4646
	(0.8269)	(0.6576)	(0.7034)	(0.9268)	(0.6960)	(0.8792)
Leverage	0.1379***	0.0480	0.0899**	0.1465***	0.0474	0.0991**
	(0.0534)	(0.0324)	(0.0436)	(0.0552)	(0.0329)	(0.0472)
Auction	-0.0668**	0.0018	-0.0686**	-0.1101**	0.0047	-0.1148**
	(0.0335)	(0.0200)	(0.0291)	(0.0535)	(0.0337)	(0.0498)
Management_Buyout						
Large_Target	-0.0508*	-0.0297*	-0.0210	-0.0314	-0.0311	-0.0003
	(0.0307)	(0.0166)	(0.0271)	(0.0354)	(0.0192)	(0.0341)
Total Owner. by 5% Holders > 20%	-0.0249	-0.0181	-0.0069	-0.0176	-0.0186	0.0009
	(0.0305)	(0.0162)	(0.0257)	(0.0340)	(0.0169)	(0.0303)
Largest Owner.>20% OR O&D Owner.>20%	0.0106	0.0170	-0.0064	-0.0113	0.0185	-0.0297
	(0.0286)	(0.0169)	(0.0246)	(0.0366)	(0.0221)	(0.0330)
Number_O&D	0.0030	0.0054***	-0.0024	0.0045	0.0053**	-0.0008
	(0.0027)	(0.0021)	(0.0023)	(0.0033)	(0.0023)	(0.0030)
Financing_Condition	0.0012	0.0088	-0.0076	0.0135	0.0079	0.0056
	(0.0346)	(0.0165)	(0.0315)	(0.0392)	(0.0174)	(0.0372)
Target_Adv_Fin	-0.0211	-0.0163	-0.0048	-0.0278	-0.0158	-0.0120
	(0.0237)	(0.0146)	(0.0219)	(0.0258)	(0.0149)	(0.0252)
Target_Adv_AcqServ	0.0303	0.0068	0.0235	0.0289	0.0069	0.0220
	(0.0240)	(0.0130)	(0.0224)	(0.0251)	(0.0132)	(0.0242)
Constant	0.0225	-0.0493	0.0719	0.0428	-0.0507	0.0935
	(0.0743)	(0.0448)	(0.0611)	(0.0799)	(0.0471)	(0.0710)
Observations	282	282	282	282	282	282
Centered R-Squared	0.315	0.192	0.298	0.233	0.183	0.120
Anderson-Rubin Wald (signif. of endogenous, pval)	0.850	0.578	0.548	0.282	0.670	0.150
Kleibergen-Paap rk LM (underid, pval)	1.09e-08	1.09e-08	1.09e-08	0.00309	0.00309	0.00309
Kleibergen-Paap rk Wald F (weakid, stat)	49.72	49.72	49.72	9.631	9.631	9.631
Stock-Yogo 10% maximal IV size (weakid, critical val)	16.38	16.38	16.38	16.38	16.38	16.38

Table 11
2SLS estimates for target 11-day CARs – Complete Sample Including MBOs

The table shows the results of a 2SLS estimation of the effect of the go-shop provision on CARs for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section IV. We employ a 2SLS methodology, adapted for the case of an endogenous binary variable and discussed in detail in Section V. The dependent variable in the second stage is CARs. Daily abnormal returns are calculated using the market model with parameters estimated over the period which starts 268 days and ends 16 days prior to the announcement day. The S&P 500 index return is the market return. The endogenous variable is Go-Shop, and takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. In all definitions the closing price 30 days prior to the announcement date is used as the pre-offer price. Estimates are over the complete sample which includes MBOs. Columns (1)-(3) show the second stage coefficients corresponding to a model which uses the full probit stage shown in column (1) of Table 5, as well as a full set of control variables for the 2SLS estimation. In column (1), the dependent variable is CARs over the period which starts 5 days prior to the announcement date and ends 5 days after the announcement date. In column (2) the dependent variable is the pre-announcement CARs, computed over the period which starts 5 days and ends 1 day prior to the announcement date. In column (3) the dependent variable is the post-announcement CARs, computed over the period which starts on the announcement date and ends 5 days after the announcement date. Columns (4)-(6) repeat the estimations shown in columns (1)-(3) corresponding now to a model which uses the parsimonious (litigation risk only) probit stage shown in column (2) of Table 5 and a full set of control variables for the 2SLS estimation. The regressions control for year fixed effects. Robust standard errors in parenthesis, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

MANAGEMENT BUYOUTS			INCLUDED			
PROBIT STAGE CONTROLS	FULL	FULL	FULL	LIT. RISK	LIT. RISK	LIT. RISK
PERIOD	[-5,5]	[-5,-1]	[0,5]	[-5,5]	[-5,-1]	[0,5]
DEPENDENT VARIABLE: CARs	(1)	(2)	(3)	(4)	(5)	(6)
Go-Shop	-0.0616	-0.0246	-0.0370	-0.1426	0.0340	-0.1766
	(0.0695)	(0.0361)	(0.0654)	(0.1080)	(0.0481)	(0.1181)
52wk_High_Ratio	0.0327*	0.0150*	0.0177	0.0332*	0.0146	0.0185
	(0.0171)	(0.0088)	(0.0203)	(0.0180)	(0.0097)	(0.0226)
Volatility	0.1192**	-0.0656***	0.1848***	0.1183**	-0.0650**	0.1832***
	(0.0476)	(0.0254)	(0.0498)	(0.0503)	(0.0288)	(0.0578)
Acq_Termin_Fee	-0.0944	-0.0572	-0.0372	-0.0937	-0.0577	-0.0360
	(0.1900)	(0.0761)	(0.1699)	(0.2024)	(0.0762)	(0.1931)
Target_Termin_Fee	0.2601	0.5676	-0.3075	0.1830	0.6234	-0.4404
	(0.6687)	(0.4344)	(0.6565)	(0.7072)	(0.4538)	(0.7434)
Leverage	0.1445***	0.0331*	0.1114***	0.1467***	0.0314	0.1153***
	(0.0400)	(0.0191)	(0.0396)	(0.0415)	(0.0206)	(0.0438)
Auction	-0.0523*	-0.0049	-0.0475*	-0.0795*	0.0148	-0.0943**
	(0.0300)	(0.0120)	(0.0273)	(0.0407)	(0.0178)	(0.0434)
Management_Buyout	0.0297	-0.0051	0.0348	0.0379	-0.0110	0.0490
	(0.0367)	(0.0163)	(0.0415)	(0.0406)	(0.0175)	(0.0477)
Large_Target	-0.0294	0.0004	-0.0297	-0.0151	-0.0099	-0.0052
	(0.0263)	(0.0109)	(0.0267)	(0.0311)	(0.0130)	(0.0339)
Total Owner. by 5% Holders > 20%	-0.0110	-0.0101	-0.0009	-0.0065	-0.0133	0.0067
	(0.0207)	(0.0104)	(0.0212)	(0.0232)	(0.0110)	(0.0257)
Largest Owner.>20% OR O&D Owner.>20%	-0.0055	0.0081	-0.0137	-0.0195	0.0182	-0.0377
	(0.0237)	(0.0103)	(0.0224)	(0.0282)	(0.0119)	(0.0296)
Number_O&D	0.0007	0.0040***	-0.0033*	0.0012	0.0036**	-0.0024
	(0.0020)	(0.0015)	(0.0018)	(0.0021)	(0.0016)	(0.0022)
Financing_Condition	0.0140	0.0075	0.0065	0.0225	0.0013	0.0213
	(0.0286)	(0.0114)	(0.0288)	(0.0315)	(0.0121)	(0.0347)
Target_Adv_Fin	-0.0113	-0.0021	-0.0091	-0.0162	0.0015	-0.0177
	(0.0219)	(0.0111)	(0.0219)	(0.0238)	(0.0115)	(0.0253)
Target_Adv_AcqServ	0.0267	-0.0052	0.0319	0.0283	-0.0064	0.0347
	(0.0208)	(0.0085)	(0.0215)	(0.0217)	(0.0089)	(0.0233)
Constant	0.0288	-0.0297	0.0585	0.0367	-0.0354	0.0721
	(0.0537)	(0.0293)	(0.0542)	(0.0571)	(0.0317)	(0.0614)
Observations	313	313	313	313	313	313
Centered R-Squared	0.273	0.148	0.268	0.185	0.0484	0.0782
Anderson-Rubin Wald (signif. of endogenous, pval)	0.376	0.500	0.570	0.156	0.460	0.0918
Kleibergen-Paap rk LM (underid, pval)	5.39e-09	5.39e-09	5.39e-09	0.000610	0.000610	0.000610
Kleibergen-Paap rk Wald F (weakid, stat)	51.69	51.69	51.69	13.18	13.18	13.18
Stock-Yogo 10% maximal IV size (weakid, critical val)	16.38	16.38	16.38	16.38	16.38	16.38

Table 12
2SLS estimates for target 11-day CARs – Subsample Excluding MBOs

The table shows the results of a 2SLS estimation of the effect of the go-shop provision on CARs for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section IV. We employ a 2SLS methodology, adapted for the case of an endogenous binary variable and discussed in detail in Section V. The dependent variable in the second stage is CARs. Daily abnormal returns are calculated using the market model with parameters estimated over the period which starts 268 days and ends 16 days prior to the announcement day. The S&P 500 index return is the market return. The endogenous variable is Go-Shop, and takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. In all definitions the closing price 30 days prior to the announcement date is used as the pre-offer price. Estimates are over the subsample which excludes MBOs. Columns (1)-(3) show the second stage coefficients corresponding to a model which uses the full probit stage shown in column (3) of Table 5, as well as a full set of control variables for the 2SLS estimation. In column (1), the dependent variable is CARs over the period which starts 5 days prior to the announcement date and ends 5 days after the announcement date. In column (2) the dependent variable is the pre-announcement CARs, computed over the period which starts 5 days and ends 1 day prior to the announcement date. In column (3) the dependent variable is the post-announcement CARs, computed over the period which starts on the announcement date and ends 5 days after the announcement date. Columns (4)-(6) repeat the estimations shown in columns (1)-(3) corresponding now to a model which uses the parsimonious (litigation risk only) probit stage shown in column (4) of Table 5 and a full set of control variables for the 2SLS estimation. The regressions control for year fixed effects. Robust standard errors in parenthesis, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

MANAGEMENT BUYOUTS			EXCLUDED			
PROBIT STAGE CONTROLS	FULL	FULL	FULL	LIT. RISK	LIT. RISK	LIT. RISK
PERIOD	[-5,5]	[-5,-1]	[0,5]	[-5,5]	[-5,-1]	[0,5]
DEPENDENT VARIABLE: CARs	(1)	(2)	(3)	(4)	(5)	(6)
Go-Shop	-0.0845	-0.0331	-0.0514	-0.1663	0.0155	-0.1818
	(0.0773)	(0.0401)	(0.0703)	(0.1303)	(0.0541)	(0.1372)
52wk_High_Ratio	0.0334*	0.0159*	0.0174	0.0330*	0.0161*	0.0169
	(0.0178)	(0.0087)	(0.0203)	(0.0184)	(0.0092)	(0.0217)
Volatility	0.1240***	-0.0679***	0.1919***	0.1244**	-0.0682**	0.1925***
	(0.0480)	(0.0258)	(0.0513)	(0.0508)	(0.0290)	(0.0596)
Acq_Termin_Fee	-0.2640*	-0.0884	-0.1755	-0.2753*	-0.0817	-0.1935
	(0.1452)	(0.0668)	(0.1373)	(0.1552)	(0.0692)	(0.1559)
Target_Termin_Fee	0.5567	0.5837	-0.0270	0.2863	0.7444	-0.4582
	(0.7018)	(0.5225)	(0.6376)	(0.8173)	(0.5625)	(0.8138)
Leverage	0.1422***	0.0410**	0.1012**	0.1475***	0.0378*	0.1097**
	(0.0433)	(0.0196)	(0.0412)	(0.0449)	(0.0206)	(0.0444)
Auction	-0.0705**	-0.0100	-0.0605**	-0.0973**	0.0059	-0.1032**
	(0.0316)	(0.0128)	(0.0278)	(0.0465)	(0.0190)	(0.0477)
Management_Buyout						
Large_Target	-0.0090	0.0041	-0.0131	0.0030	-0.0030	0.0060
	(0.0263)	(0.0114)	(0.0258)	(0.0314)	(0.0133)	(0.0328)
Total Owner. by 5% Holders > 20%	-0.0160	-0.0155	-0.0005	-0.0114	-0.0182	0.0067
	(0.0235)	(0.0108)	(0.0235)	(0.0265)	(0.0112)	(0.0282)
Largest Owner.>20% OR O&D Owner.>20%	-0.0025	0.0103	-0.0128	-0.0160	0.0183	-0.0344
	(0.0262)	(0.0107)	(0.0236)	(0.0319)	(0.0123)	(0.0321)
Number_O&D	0.0004	0.0037**	-0.0033	0.0013	0.0031*	-0.0018
	(0.0023)	(0.0018)	(0.0021)	(0.0028)	(0.0018)	(0.0028)
Financing_Condition	0.0105	0.0129	-0.0024	0.0182	0.0083	0.0098
	(0.0324)	(0.0118)	(0.0304)	(0.0355)	(0.0119)	(0.0360)
Target_Adv_Fin	-0.0126	-0.0016	-0.0110	-0.0167	0.0009	-0.0176
	(0.0221)	(0.0112)	(0.0216)	(0.0243)	(0.0113)	(0.0251)
Target_Adv_AcqServ	0.0203	-0.0045	0.0248	0.0194	-0.0040	0.0234
	(0.0211)	(0.0091)	(0.0211)	(0.0221)	(0.0094)	(0.0230)
Constant	0.0331	-0.0381	0.0712	0.0456	-0.0456	0.0911
	(0.0563)	(0.0323)	(0.0561)	(0.0619)	(0.0347)	(0.0654)
Observations	282	282	282	282	282	282
Centered R-Squared	0.266	0.174	0.270	0.164	0.121	0.0748
Anderson-Rubin Wald (signif. of endogenous, pval)	0.272	0.413	0.460	0.165	0.771	0.137
Kleibergen-Paap rk LM (underid, pval)	1.09e-08	1.09e-08	1.09e-08	0.00309	0.00309	0.00309
Kleibergen-Paap rk Wald F (weakid, stat)	49.72	49.72	49.72	9.631	9.631	9.631
Stock-Yogo 10% maximal IV size (weakid, critical val)	16.38	16.38	16.38	16.38	16.38	16.38

Appendix: Heckman Estimator and Additional Tables

As an additional robustness test, we estimate the exogenous effect of the go-shop provision on the offer premium and CARs using a Heckman estimator.[27]

If we think of the go-shop decision as the treatment variable, the bias we are concerned with arises from the fact that assignment to the treated (go-shop) and untreated (no-shop) groups may not be random and thus potentially endogenous to the outcome variable (offer premium or CARs). Similar to the 2SLS case, we can think of two stages, an assignment first stage and a primary second stage as shown in Equations (6) and (7) respectively:

$$GO_i = I\left(\alpha_t + \gamma \cdot Controls_{it} + \lambda \cdot Instruments_{it} + \varepsilon_{it} > 0\right) \qquad (6)$$

$$OP_{it} = \kappa_t + \beta \cdot GO_i + \gamma \cdot Controls_{it} + u_{it} \qquad (7)$$

In this setting, the endogeneity of the go-shop variable in the offer premium equation arises from a correlation between the error terms of the first and second stages. The Heckman estimator employs a control function approach in which the nature of the endogeneity is explicitly modeled in the second stage. In particular, after estimating the non-linear first stage, we include the generalized probit residual as an additional control in the second stage. Defining Z_{it} as in Equation (8) and allowing for the covariance between the error terms in the two stages to differ between the treated and untreated groups[28], the augmented second stage used in this approach is shown in Equation (9). In this framework, β consistently estimates the exogenous effect of the go-shop provision on the offer premium.

$$Z_{it} = \alpha_t + \gamma \cdot Controls_{it} + \lambda \cdot Instruments_{it} \qquad (8)$$

[27] See Vella and Verbeek (1999) for a detailed discussion of the similarities between the IV and Heckman approach.
[28] The results remain unchanged if we assume the treated and untreated groups to have equal covariances between the error terms of the two stages.

$$OP_{it} = \kappa_t + \beta \cdot GO_i + \gamma \cdot Controls_{it} + \omega_1 \frac{\phi(-Z_{it})}{1-\Phi(-Z_{it})} \cdot GO_i + \omega_0 \frac{-\phi(Z_{it})}{\Phi(-Z_{it})} \cdot (1-GO_i) + u_{it} \quad (9)$$

The estimation method proceeds in two stages. We first estimate the decision to include a go-shop provision in the merger agreement using a probit model with a full set of controls, including variables capturing litigation risk. We then add the generalized probit residuals from this first stage (_wL1, _wL0) as additional controls in the second stage.

The results are shown for samples including or excluding management buyouts, and for full or parsimonious specifications of the offer-premium equation. Regressions control for year fixed effects. Bootstrapped standard errors are computed over 500 iterations. Appendix Table A2 displays the Heckman estimates for the 30-day premium using samples including or excluding MBOs, and for full and parsimonious specifications. Note that the corresponding probit stage always includes the full list of controls and the instruments. As can be seen, the results are qualitatively unchanged when compared to the ones obtained employing the 2SLS approach. The Heckman estimates also remain unchanged for the 5-day premium, as shown in Appendix Appendix Table A3.

We also repeat our tests for CARs using the Heckman estimator. Appendix Appendix Table A4 shows the results for the three CAR periods. Columns (1)-(3) show estimates for the complete sample and columns (4)-(6) show estimates for the sample that excludes MBOs. The estimates are very similar to those obtained using the 2SLS estimator. Appendix Appendix Table A5 repeats the experiments for 11-day CARs and the results, again, remain qualitatively unchanged.

Appendix Table A1
2SLS Estimates For The 5-Day Offer Premium

The table shows the results of a 2SLS estimation of the effect of the go-shop provision on the offer-premium for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section IV. We employ a 2SLS methodology, adapted for the case of an endogenous binary variable and discussed in detail in Section V. The dependent variable in the second stage is the offer premium, defined as the initial bid price divided by the pre-offer price, minus 1. The endogenous variable is Go-Shop, and takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. In all definitions the closing price 5 days prior to the announcement date is used as the pre-offer price. Columns (1)-(3) show the coefficients for the second stage, estimated over the complete sample which includes MBOs. Column (1) corresponds to a model which uses the full probit stage shown in column (1) of Table 5, as well as a full set of control variables for the 2SLS estimation. Column (2) corresponds to a model which uses the parsimonious (litigation risk only) probit stage shown in column (2) of Table 5, and a full set of control variables for the 2SLS estimation. Column (3) corresponds to a model which uses the parsimonious (litigation risk only) probit stage shown in column (2) of Table 5, as well as a parsimonious set of control variables for the 2SLS estimation. Columns (4)-(6) repeat the estimations shown in columns (1)-(3) over the sample which excludes MBOs. All 2SLS regressions control for year fixed effects. Robust standard errors in parenthesis, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

MANAGEMENT BUYOUTS		INCLUDED			EXCLUDED	
PROBIT STAGE CONTROLS	FULL	LIT. RISK	LIT. RISK	FULL	LIT. RISK	LIT. RISK
DEPENDENT VARIABLE: 5-DAY OFFER-PREMIUM	(1)	(2)	(3)	(4)	(5)	(6)
Go-Shop	-0.2993*	-0.4932*	-0.4000**	-0.2285*	-0.4818*	-0.3843**
	(0.1668)	(0.2702)	(0.1735)	(0.1295)	(0.2719)	(0.1902)
52wk_High_Ratio	0.2013***	0.2134***	0.2399***	0.2443***	0.2560***	0.2787***
	(0.0541)	(0.0573)	(0.0492)	(0.0598)	(0.0650)	(0.0553)
Volatility	0.1959**	0.1807*		0.1808*	0.1664	
	(0.0993)	(0.1075)		(0.0994)	(0.1076)	
Acq_Termin_Fee	0.2394	0.2478	0.3200	0.2569	0.2197	0.2876
	(0.3746)	(0.3832)	(0.3647)	(0.4120)	(0.4353)	(0.4142)
Target_Termin_Fee	-1.5752	-1.5358	-1.9880	-0.6627	-0.8318	-1.1159
	(1.4573)	(1.5863)	(1.4611)	(1.1733)	(1.4618)	(1.3635)
Leverage	0.2348**	0.2384**	0.2629**	0.1597*	0.1716*	0.1919**
	(0.1008)	(0.1076)	(0.1182)	(0.0819)	(0.0896)	(0.0841)
Auction	-0.1423**	-0.2054**	-0.1879***	-0.1265***	-0.2094**	-0.1888***
	(0.0659)	(0.0976)	(0.0692)	(0.0455)	(0.0907)	(0.0672)
Management_Buyout	0.0492	0.0669				
	(0.1091)	(0.1198)				
Large_Target	0.0095	0.0427		-0.0008	0.0379	
	(0.0534)	(0.0656)		(0.0407)	(0.0544)	
Total Owner. by 5% Holders > 20%	-0.0892*	-0.0830		-0.0984*	-0.0906	
	(0.0528)	(0.0576)		(0.0551)	(0.0604)	
Largest Owner.>20% OR O&D Owner.>20%	-0.0102	-0.0453		-0.0130	-0.0578	
	(0.0397)	(0.0589)		(0.0403)	(0.0643)	
Number_O&D	0.0013	0.0026		0.0042	0.0071	
	(0.0051)	(0.0057)		(0.0046)	(0.0059)	
Financing_Condition	-0.0483	-0.0243		-0.0130	0.0181	
	(0.0533)	(0.0666)		(0.0467)	(0.0625)	
Target_Adv_Fin	-0.0369	-0.0488		-0.0183	-0.0318	
	(0.0494)	(0.0547)		(0.0454)	(0.0513)	
Target_Adv_AcqServ	0.0258	0.0293		0.0036	0.0020	
	(0.0438)	(0.0470)		(0.0371)	(0.0410)	
Constant	-0.0215	-0.0189	-0.0375	-0.1001	-0.0944	-0.0844
	(0.1119)	(0.1197)	(0.0931)	(0.1079)	(0.1217)	(0.0974)
Observations	321	321	321	289	289	289
Centered R-Squared	0.237	0.0909	0.146	0.395	0.220	0.274
Anderson-Rubin Wald (signif. of endogenous, pval)	0.0588	0.0303	0.00650	0.0740	0.0337	0.0165
Kleibergen-Paap rk LM (underid, pval)	6.10e-09	0.000563	4.20e-05	1.53e-08	0.00211	0.000399
Kleibergen-Paap rk Wald F (weakid, stat)	49.50	13.39	20.32	46.05	10.41	15.13
Stock-Yogo 10% maximal IV size (weakid, critical val)	16.38	16.38	16.38	16.38	16.38	16.38

Appendix Table A2
Heckman Estimates For The 30-day Offer Premium

The table shows the results of a Heckman estimation of the effect of the go-shop provision on the offer-premium for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section IV. We employ a Heckman estimator discussed in detail in the Appendix. The dependent variable in the second stage is the offer premium, defined as the initial bid price divided by the pre-offer price, minus 1. The selection variable is Go-Shop, and takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. In all definitions the closing price 30 days prior to the announcement date is used as the pre-offer price. We first estimate the decision to include a go-shop provision in the initial agreement using a probit model with a full set of controls, including variables capturing litigation risk, shown in Column 1 of Table 5. We then add the generalized probit residuals from this first stage (_wL1, _wL0) as additional controls and estimate the second stage. Columns (1)-(2) show the coefficients for the second stage, estimated over the complete sample which includes MBOs. Column (1) corresponds to a model which uses a full set of control variables for the second stage. Column (2) corresponds to a model which uses a parsimonious set of control variables for the second stage. Columns (3)-(4) repeat the estimations shown in columns (1)-(2) over the sample which excludes MBOs. All regressions control for year fixed effects. Standard errors in parenthesis, bootstrapped over 500 iterations, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

MANAGEMENT BUYOUTS	INCLUDED		EXCLUDED	
PROBIT STAGE CONTROLS	FULL	FULL	FULL	FULL
DEPENDENT VARIABLE: 30-DAY OFFER-PREMIUM	(1)	(2)	(3)	(4)
Go-Shop	-0.4750***	-0.4193***	-0.3664**	-0.3379**
	(0.1807)	(0.1537)	(0.1587)	(0.1542)
52wk_High_Ratio	0.1902***	0.2007***	0.2065**	0.2202***
	(0.0683)	(0.0636)	(0.0883)	(0.0837)
Volatility	0.1354		0.1534	
	(0.1303)		(0.1315)	
Acq_Termin_Fee	0.9756	1.0142	0.8784	0.9409
	(0.6708)	(0.7093)	(0.7814)	(0.7260)
Target_Termin_Fee	-3.6268**	-3.8734**	-2.5029*	-2.3053*
	(1.6713)	(1.5201)	(1.3951)	(1.2222)
Leverage	0.3407**	0.3563***	0.2667**	0.2691**
	(0.1373)	(0.1341)	(0.1277)	(0.1176)
Auction	-0.2080***	-0.2175***	-0.1831***	-0.1846***
	(0.0729)	(0.0660)	(0.0643)	(0.0613)
Management_Buyout	0.0425			
	(0.1258)			
Large_Target	0.0061		-0.0112	
	(0.0650)		(0.0554)	
Total Ownership by 5% Holders > 20%	-0.0527		-0.0674	
	(0.0596)		(0.0638)	
Largest Owner.>20% OR O&D Owner.>20%	-0.0306		-0.0371	
	(0.0503)		(0.0555)	
Number_O&D	0.0069		0.0098	
	(0.0066)		(0.0061)	
Financing_Condition	-0.0528		-0.0135	
	(0.0712)		(0.0618)	
Target_Adv_Fin	-0.0513		-0.0331	
	(0.0520)		(0.0503)	
Target_Adv_AcqServ	0.0135		-0.0084	
	(0.0500)		(0.0475)	
_wL1	0.2658*	0.1806	0.1655*	0.1557
	(0.1421)	(0.1185)	(0.0858)	(0.0993)
_wL0	-0.3796***	-0.3619***	-0.3000**	-0.2276*
	(0.1359)	(0.1323)	(0.1317)	(0.1315)
Constant	0.0421	0.0871	-0.0139	0.0096
	(0.1592)	(0.1338)	(0.1643)	(0.1385)
Observations	321	321	289	289
Adjusted R-Squared	0.347	0.341	0.432	0.427

Appendix Table A3
Heckman Estimates For The 5-day Offer Premium

The table shows the results of a Heckman estimation of the effect of the go-shop provision on the offer-premium for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section IV. We employ a Heckman estimator discussed in detail in the Appendix. The dependent variable in the second stage is the offer premium, defined as the initial bid price divided by the pre-offer price, minus 1. The selection variable is Go-Shop, and takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. In all definitions the closing price 5 days prior to the announcement date is used as the pre-offer price. We first estimate the decision to include a go-shop provision in the initial agreement using a probit model with a full set of controls, including variables capturing litigation risk, shown in Column 1 of Table 5. We then add the generalized probit residuals from this first stage (_wL1, _wL0) as additional controls and estimate the second stage. Columns (1)-(2) show the coefficients for the second stage, estimated over the complete sample which includes MBOs. Column (1) corresponds to a model which uses a full set of control variables for the second stage. Column (2) corresponds to a model which uses a parsimonious set of control variables for the second stage. Columns (3)-(4) repeat the estimations shown in columns (1)-(2) over the sample which excludes MBOs. All regressions control for year fixed effects. Standard errors in parenthesis, bootstrapped over 500 iterations, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

MANAGEMENT BUYOUTS	INCLUDED		EXCLUDED	
PROBIT STAGE CONTROLS	FULL	FULL	FULL	FULL
DEPENDENT VARIABLE: 5-DAY OFFER-PREMIUM	(1)	(2)	(3)	(4)
Go-Shop	-0.3455**	-0.3166**	-0.2820**	-0.2422*
	(0.1587)	(0.1299)	(0.1278)	(0.1325)
52wk_High_Ratio	0.2042***	0.2380***	0.2471***	0.2776***
	(0.0623)	(0.0589)	(0.0693)	(0.0555)
Volatility	0.1920*		0.1801	
	(0.1035)		(0.1146)	
Acq_Termin_Fee	0.2429	0.3085	0.2282	0.3234
	(0.6215)	(0.6494)	(0.6797)	(0.6642)
Target_Termin_Fee	-1.5622	-1.9316	-0.7138	-0.7416
	(1.4080)	(1.3459)	(1.1983)	(1.2513)
Leverage	0.2354**	0.2569**	0.1649*	0.1683**
	(0.1016)	(0.1055)	(0.0881)	(0.0811)
Auction	-0.1569**	-0.1654***	-0.1474***	-0.1385***
	(0.0636)	(0.0510)	(0.0490)	(0.0479)
Management_Buyout	0.0532			
	(0.1059)			
Large_Target	0.0171		0.0106	
	(0.0549)		(0.0428)	
Total Ownership by 5% Holders > 20%	-0.0878*		-0.0961*	
	(0.0531)		(0.0549)	
Largest Owner.>20% OR O&D Owner.>20%	-0.0183		-0.0252	
	(0.0439)		(0.0439)	
Number_O&D	0.0016		0.0049	
	(0.0051)		(0.0046)	
Financing_Condition	-0.0427		-0.0052	
	(0.0569)		(0.0485)	
Target_Adv_Fin	-0.0398		-0.0209	
	(0.0482)		(0.0475)	
Target_Adv_AcqServ	0.0266		0.0031	
	(0.0434)		(0.0389)	
_wL1	0.2296*	0.1748*	0.1495**	0.1350
	(0.1295)	(0.1015)	(0.0734)	(0.0821)
_wL0	-0.2260*	-0.2107*	-0.1822*	-0.1062
	(0.1216)	(0.1121)	(0.1091)	(0.1212)
Constant	-0.0213	-0.0468	-0.0966	-0.1293
	(0.1167)	(0.1005)	(0.1206)	(0.1013)
Observations	321	321	289	289
Adjusted R-Squared	0.288	0.271	0.398	0.385

Appendix Table A4
Heckman Estimates For Target 31-Day CARs

The table shows the results of a Heckman estimation of the effect of the go-shop provision on CARs for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section IV. We employ a Heckman estimator discussed in detail in the Appendix. The dependent variable in the second stage is CARs. Daily abnormal returns are calculated using the market model with parameters estimated over the period which starts 268 days and ends 16 days prior to the announcement day. The S&P 500 index return is the market return. The selection variable is Go-Shop, and takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. In all definitions the closing price 30 days prior to the announcement date is used as the pre-offer price. We first estimate the decision to include a go-shop provision in the initial agreement using a probit model with a full set of controls, including variables capturing litigation risk, shown in column 1 of Table 5. We then add the generalized probit residuals from this first stage (_wL1, _wL0) as additional controls and estimate the second stage. Columns (1)-(3) report second stage coefficients estimated over the complete sample which includes MBOs. In column (1), the dependent variable is CARs over the period which starts 15 days prior to the announcement date and ends 15 days after the announcement date. In column (2) the dependent variable is the pre-announcement CARs, computed over the period which starts 15 days and ends 1 day prior to the announcement date. In column (3) the dependent variable is the post-announcement CARs, computed over the period which starts on the announcement date and ends 15 days after the announcement date. Columns (4)-(6) repeat the estimations shown in columns (1)-(3) over a subsample which excludes MBOs. The regressions control for year fixed effects. Standard errors in parenthesis, bootstrapped over 500 iterations, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

MANAGEMENT BUYOUTS		INCLUDED			EXCLUDED	
PROBIT STAGE CONTROLS	FULL	FULL	FULL	FULL	FULL	FULL
PERIOD	[-15,15]	[-15,-1]	[0,15]	[-15,15]	[-15,-1]	[0,15]
DEPENDENT VARIABLE: CARs	(1)	(2)	(3)	(4)	(5)	(6)
Go-Shop	-0.0650	0.0176	-0.0826	-0.0516	0.0301	-0.0817
	(0.0722)	(0.0514)	(0.0771)	(0.0800)	(0.0580)	(0.0761)
52wk_High_Ratio	0.0650	0.0351*	0.0300	0.0619	0.0330	0.0289
	(0.0515)	(0.0197)	(0.0376)	(0.0594)	(0.0258)	(0.0418)
Volatility	0.0533	-0.1240***	0.1772***	0.0543	-0.1274**	0.1817***
	(0.0790)	(0.0436)	(0.0565)	(0.0793)	(0.0507)	(0.0594)
Acq_Termin_Fee	-0.0256	0.0566	-0.0822	-0.1942	0.0223	-0.2166
	(0.4571)	(0.2350)	(0.3112)	(0.3779)	(0.2290)	(0.2717)
Target_Termin_Fee	0.0837	0.2900	-0.2062	0.2177	0.2642	-0.0465
	(0.8517)	(0.6551)	(0.8033)	(0.9502)	(0.7314)	(0.7898)
Leverage	0.1385***	0.0374	0.1012**	0.1395**	0.0507	0.0888*
	(0.0522)	(0.0313)	(0.0447)	(0.0630)	(0.0341)	(0.0473)
Auction	-0.0785**	-0.0053	-0.0732**	-0.0779**	-0.0008	-0.0770***
	(0.0325)	(0.0207)	(0.0315)	(0.0348)	(0.0240)	(0.0296)
Management_Buyout	0.0138	-0.0251	0.0389			
	(0.0409)	(0.0271)	(0.0422)			
Large_Target	-0.0595*	-0.0313*	-0.0282	-0.0462	-0.0273	-0.0189
	(0.0314)	(0.0183)	(0.0307)	(0.0319)	(0.0194)	(0.0271)
Total Owner. by 5% Holders > 20%	-0.0148	-0.0120	-0.0028	-0.0231	-0.0174	-0.0058
	(0.0297)	(0.0179)	(0.0245)	(0.0310)	(0.0180)	(0.0259)
Largest Owner.>20% OR O&D Owner.>20%	0.0006	0.0175	-0.0170	0.0054	0.0145	-0.0091
	(0.0285)	(0.0177)	(0.0264)	(0.0311)	(0.0195)	(0.0279)
Number_O&D	0.0045	0.0065***	-0.0020	0.0034	0.0055**	-0.0021
	(0.0028)	(0.0020)	(0.0022)	(0.0030)	(0.0023)	(0.0027)
Financing_Condition	0.0075	0.0008	0.0067	0.0044	0.0094	-0.0050
	(0.0320)	(0.0172)	(0.0327)	(0.0366)	(0.0168)	(0.0328)
Target_Adv_Fin	-0.0223	-0.0152	-0.0072	-0.0230	-0.0160	-0.0070
	(0.0245)	(0.0155)	(0.0233)	(0.0241)	(0.0151)	(0.0239)
Target_Adv_AcqServ	0.0385	0.0046	0.0338	0.0299	0.0067	0.0232
	(0.0249)	(0.0127)	(0.0238)	(0.0258)	(0.0132)	(0.0237)
_wL1	0.0529	-0.0332	0.0861	0.0563	-0.0465	0.1028*
	(0.0522)	(0.0338)	(0.0624)	(0.0572)	(0.0394)	(0.0617)
_wL0	-0.0749	0.0169	-0.0917	-0.0472	0.0153	-0.0625
	(0.0530)	(0.0385)	(0.0567)	(0.0536)	(0.0401)	(0.0529)
Constant	0.0200	-0.0383	0.0583	0.0270	-0.0459	0.0729
	(0.0835)	(0.0443)	(0.0759)	(0.0991)	(0.0513)	(0.0753)
Observations	313	313	313	282	282	282
Adjusted R-Squared	0.289	0.136	0.273	0.263	0.153	0.287

Appendix Table A5
Heckman estimates for target 11-day CARs

The table shows the results of a Heckman estimation of the effect of the go-shop provision on CARs for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section IV. We employ a Heckman estimator discussed in detail in the Appendix. The dependent variable in the second stage is CARs. Daily abnormal returns are calculated using the market model with parameters estimated over the period which starts 268 days and ends 16 days prior to the announcement day. The S&P 500 index return is the market return. The selection variable is Go-Shop, and takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. In all definitions the closing price 30 days prior to the announcement date is used as the pre-offer price. We first estimate the decision to include a go-shop provision in the initial agreement using a probit model with a full set of controls, including variables capturing litigation risk, shown in column 1 of Table 5. We then add the generalized probit residuals from this first stage (_wL1, _wL0) as additional controls and estimate the second stage. Columns (1)-(3) report second stage coefficients estimated over the complete sample which includes MBOs. In column (1), the dependent variable is CARs over the period which starts 5 days prior to the announcement date and ends 5 days after the announcement date. In column (2) the dependent variable is the pre-announcement CARs, computed over the period which starts 5 days and ends 1 day prior to the announcement date. In column (3) the dependent variable is the post-announcement CARs, computed over the period which starts on the announcement date and ends 5 days after the announcement date. Columns (4)-(6) repeat the estimations shown in columns (1)-(3) over a subsample which excludes MBOs. The regressions control for year fixed effects. Standard errors in parenthesis, bootstrapped over 500 iterations, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

MANAGEMENT BUYOUTS		INCLUDED			EXCLUDED	
PROBIT STAGE CONTROLS	FULL	FULL	FULL	FULL	FULL	FULL
PERIOD	[-5,5]	[-5,-1]	[0,5]	[-5,5]	[-5,-1]	[0,5]
DEPENDENT VARIABLE: CARs	(1)	(2)	(3)	(4)	(5)	(6)
Go-Shop	-0.0939	-0.0124	-0.0816	-0.1108	-0.0247	-0.0861
	(0.0789)	(0.0377)	(0.0750)	(0.0778)	(0.0442)	(0.0705)
52wk_High_Ratio	0.0330	0.0149	0.0181	0.0343	0.0157	0.0186
	(0.0275)	(0.0143)	(0.0313)	(0.0355)	(0.0160)	(0.0384)
Volatility	0.1175**	-0.0655**	0.1830***	0.1185**	-0.0663**	0.1849***
	(0.0534)	(0.0284)	(0.0471)	(0.0565)	(0.0317)	(0.0527)
Acq_Termin_Fee	-0.0895	-0.0574	-0.0321	-0.2449	-0.0939	-0.1510
	(0.3003)	(0.1424)	(0.2888)	(0.2701)	(0.1334)	(0.2635)
Target_Termin_Fee	0.2472	0.5792	-0.3320	0.5494	0.5880	-0.0386
	(0.7707)	(0.4717)	(0.7102)	(0.7668)	(0.5402)	(0.7342)
Leverage	0.1443***	0.0328	0.1116***	0.1401***	0.0415**	0.0986**
	(0.0418)	(0.0223)	(0.0430)	(0.0470)	(0.0210)	(0.0472)
Auction	-0.0618*	-0.0008	-0.0610*	-0.0750**	-0.0085	-0.0666**
	(0.0328)	(0.0141)	(0.0313)	(0.0320)	(0.0158)	(0.0287)
Management_Buyout	0.0317	-0.0063	0.0380			
	(0.0372)	(0.0168)	(0.0424)			
Large_Target	-0.0247	-0.0018	-0.0230	-0.0087	0.0039	-0.0126
	(0.0281)	(0.0125)	(0.0297)	(0.0266)	(0.0128)	(0.0271)
Total Owner. by 5% Holders > 20%	-0.0095	-0.0108	0.0012	-0.0156	-0.0156	0.0001
	(0.0216)	(0.0112)	(0.0211)	(0.0237)	(0.0124)	(0.0230)
Largest Owner.>20% OR O&D Owner.>20%	-0.0101	0.0102	-0.0203	-0.0032	0.0106	-0.0138
	(0.0272)	(0.0110)	(0.0253)	(0.0283)	(0.0122)	(0.0267)
Number_O&D	0.0009	0.0039***	-0.0030	0.0006	0.0036**	-0.0030
	(0.0022)	(0.0015)	(0.0021)	(0.0024)	(0.0018)	(0.0022)
Financing_Condition	0.0171	0.0062	0.0109	0.0120	0.0124	-0.0004
	(0.0292)	(0.0122)	(0.0302)	(0.0322)	(0.0126)	(0.0333)
Target_Adv_Fin	-0.0135	-0.0014	-0.0121	-0.0142	-0.0011	-0.0131
	(0.0217)	(0.0113)	(0.0240)	(0.0229)	(0.0118)	(0.0224)
Target_Adv_AcqServ	0.0273	-0.0054	0.0328	0.0201	-0.0045	0.0246
	(0.0202)	(0.0085)	(0.0201)	(0.0212)	(0.0093)	(0.0205)
_wL1	0.0780	-0.0144	0.0925	0.1004**	-0.0120	0.1123**
	(0.0521)	(0.0265)	(0.0569)	(0.0508)	(0.0311)	(0.0551)
_wL0	-0.0649	0.0144	-0.0792	-0.0582	-0.0004	-0.0579
	(0.0564)	(0.0269)	(0.0554)	(0.0572)	(0.0266)	(0.0503)
Constant	0.0303	-0.0309	0.0612	0.0321	-0.0379	0.0701
	(0.0636)	(0.0325)	(0.0643)	(0.0678)	(0.0355)	(0.0755)
Observations	313	313	313	282	282	282
Adjusted R-Squared	0.254	0.0808	0.258	0.266	0.102	0.277